SEQUENCE LISTING

<110> Salceda, Susana
Macina, Roberto
Recipon, Herve
Cafferkey, Robert
Sun, Yongming
Liu, Chenghua

<120> Compositions and Methods Relating to Breast Specific Genes and Proteins

<130> DEX-0269

<150> 60/249,998
<151> 2000-11-20

<150> 60/252,563
<151> 2000-11-22

<160> 137

<170> PatentIn version 3.1

<210> 1
<211> 1632
<212> DNA
<213> Homo sapien

<400> 1
ggtcgcggcc gaggtccttc ccctttttt ttttttttt ttttttttt ttttttgggt 60

ccaaatttac gggttttttt tttgggcaca ataaaaacac tctaaaatct tttttcccac 120

acccttttt ttttaaattt tgcgcacacg gggtgtattt ttgttccaca caaaacatct 180

attcacattg tgtttacacc ctcttatttt ctttgagaaa accacaacat attttattta 240

aatattgtgt ttgtgtcttc tctaaaaacg cctcttattc cctctcccac gtttctcaat 300

ctctttgtgt atattgtgtg tatatttaaa gcacacataa gagatgttat attgtgtgtg 360

tgcacactac tctctctatg ttcaacacac acacacatat atatacccct ctatgggaca 420

catatatata aacaatatat gtgatgacac acacagatct gttatgtgac actatttctc 480

acacacatat ataaagtcta tctctcttct aatatatctc acggtgtata tatcacagtg 540

tattcatcac aggaaatata tatgtgtgtg ctcggcccgc tctatatata tatacactac 600

atatataaca catatatcta taacatctgg tgtatgtggg cttaaaacac gacatataat 660

atatcatgtt atatctaccc acacaggata tgtgtgtaca cacaaagagg gagaagataa 720

tatgtgtata tctctccccc actctctcta aacaacctcc cctctatata cacacaggtg 780

tgtagagaaa gtagttataa ggggagttgt tttcgtgttc tacaaagggg cgcagaacag 840

taacaaatac tgttgtgagg gtgtcgttct catctatcaa tattttccac agctaatatt 900

tcccgcgggt gtatataata tctagagggg agggcaatcg tgggcgtcgt attctcatgt 960

gggagagtaa taatgtcggc tctcttaaag ggggtggttg tagaaccccc ctccctataa 1020

tagtaaaaga tgtttaacac agccaacggg tggctgcttg ttgatgacat aatatcgcac 1080

caccaaatgt gggtgtggtg ggggaggcaa ctacacgacg gagacaaaca aattgcggcg 1140

ggtggcggcc gcccgattct gtatttattc gaacgccgcg cctgtgttgt gttgtgcggc 1200

aactatctgc gcctacttgc ttgctcacca aacaataata tataggcggg agcgggtgct 1260

ggcgaggaga gacacacacg tctttccccg ccgaacaaac aaaacagagg gggcggatga 1320

ctgacgcctg attgtataga aacaaaaacg atcgaacgac gaaggcaacg atccgtctat 1380

tgcgacgtca gacaacgcgc gcctccttct cttccagggg gggggggata gatacttagg 1440

gtagatacta ccgtagtagt atttgtgcgc ggcagcacac gacgaaagac ttactcagag 1500

agtgtctccc ccacccaagg aggtagaaat gaagtgggga ggacgactac ttctacaaac 1560

ataagtaagg gggggtgata ataacgaggg gcgctcagac aacggaggtt ctattacatc 1620

tgtgcgcgcc ga 1632

<210> 2
<211> 163
<212> DNA
<213> Homo sapien

<400> 2
gagagaacac taggggcagg ttcctgagca ggcggcggcg ctgggaggag aatgtatgcg 60

agacctctta tataattgat tgacgcaaac ttgtcctcct ctaagaggag agagtctgct 120

taagcgtaag tttgccagtg caaaaagcca taataataag tat 163

<210> 3
<211> 666
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (166)..(166)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (332)..(332)
<223> a, c, g or t

<400> 3
cttttatttt tttttttttt tttttttttt tttttttttt ttttttcccc ttttttaatt 60

ttaaaattag gcccacgggg gggattttta taaacctcta tttattttcc aacaaatttt 120

gtggtccaaa tataaaactc atttttttct accttacaca acttgncctt ctttattctc 180

atttttaaat gatggatata cctcacaact ctctgcgtct caaaccaaat tctttttttc 240

ttaaacagtg acgcgtggta aactctccta taccсttatc tatttccccc gcggtgggaa 300

aaattagcct tttcaaaatg tgttctcccc antcttgtgg cttattaaaa ggtggggaat 360

tccctttctt tgtgggacgc ccctatactg tttgtctctg gctctccttt taggcccgag 420

gagaatttct tcctcccagg tgagagagag gcgggtttca ccgcagtata taaaccgcca 480

aagctggggc ggatacgtcg gtggtccact agccgtgttc cccttggttg tgaaaatttg 540

ttattcccgc cctcacaatt ctcccccсca aatactccac ccaccccaac ccgcagcgga 600

gtacggacaa cgacgacacc acgacgataa tacgaacaaa gcaacctaac atcgaacact 660

acacaa 666

<210> 4
<211> 1107
<212> DNA
<213> Homo sapien

<400> 4
cccccccccc cccсctcctc ccgatgtgtt caccctatag ggcgcaattg ggcctctaga 60

ttctgctcga gcggcgcagt gtgatggatc ggccgcccgg gcaggttttt tttttttttt 120

tttttttttt tttttttttt tttttttttt tttttttttt ttttttgggg gggccccctt 180

tttttttccc cccccccccc cctttttttt ttccgggggg gggggcccta ctaaagacag 240

ccggctaccg aaaaaaatac acctagggtt tattttcacc cccaatcacc atggttgtcg 300

accccccсag ggggggctct ctttcttttt cccaactctc ccaaccgacg tggttttcct 360

cccccctacc gtcgtggggg gtaccccgtg cgccacagtc ggtgtgttcc cgctgtgtgg 420

taggaaagtg tgtttctctc ccgcctcacc gaccttcttc ccacccacac aaacatatgc 480

agcagcgcca agaacacaaa ctcgttccga ccggacggcc cggacggaac gggcgatgtg 540

aggctcgacg caaccatatg caagggacgg catcacagag cccgaccagg atcgcagcca 600

gcgatcgcac ggacgaacag cgcatcgcgc cgccgcacca cccacccggc ccgcaggggg 660

agatcaatac atgcggccgt gcagcctcca agggcccaac caccaagctc ggcgcggaat 720

caggacggac catgacgcac accgaacgac gaagaccaaa gcaacatctc gccacgaacg 780

cccaaagacc gcgattgcac aggcacccaa cgtgtatccg aaggatgagc gactgacacc 840

aacacacctg tggcctgcct tgatgctgca cggcgcgaaa cggagatcct gccggtcgtc 900

gccacgcgta cccacagaaa gccaacaagc gacacgacac cacaacacac cgaagcagct 960

cacggaggaa gagatgcaaa gaacaacgac aaatgaacac aaaaaacgac cacaaacaga 1020

gatgagtaca accgacaaac aaaaaaagca agactcaaac acacaccgag cagtaagtgc 1080

gatacagcaa agagaccaga caaccaa 1107

<210> 5
<211> 720
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (364)..(364)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (429)..(429)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (459)..(459)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (637)..(637)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (654)..(654)
<223> a, c, g or t

<400> 5
ccgcccgggc aggtccctcc ttttttttct ttttttttct ttttttttct ccttttttaa 60

aaaatattaa ctttgttttt taatcattgg gaggggggge cccgaagaag ggggtagggg 120

ccccagggaa gggggggtc tgtgaaaata ataaccaaaa atgtgttgaa agaaaagggg 180

gggtgtttaa aagcggccgt ggccaggggg tctcccccgg gttctcgctt tctgtgggaa 240

ggggacgcgc cttgtgagga agggagttct gtatgcaacg cctattagtc ttggtgcctc 300

ccaattcact attataaaaa atttctgtga aaacttctta gcttgcccat ctcgggtggt 360

gggntgtctc tagttctttc tcatctcatg tgcgggccag aggcacccca gggggctcct 420

ctcgtagcnt cctgtggtgg aaaggggaca gccatagtnt cgcgtgatat ctctcatgta 480

aatagcgctg gggggcgtat aaactcgtgt gggggcacat atagcgcgtg tgttgccgcg 540

tgggtgaggt ggaagcatgt gtgggttttc tgtgcgcgcg cctcacacat attacccccc 600

aacaactcat tacgtggtaa agcaaaaaag cgatgtntgg cagtgagcag gganaacggg 660

gtcacaagta gtacaaacaa gcaaagctga atgacaaaaa aacgaggtga aaaaaaagaa 720

<210> 6
<211> 927
<212> DNA
<213> Homo sapien

<400> 6
atggggaccc tctgagtgtc caacaatctc tgaggcagca tcccagcctc ctctctctcc 60

cagcctgtct gtaactggtg aatggtgatg tgtttcctgg ctgagaactg tgtttacagt 120

aagtctctgc cctccagtga acttttaag ggcaggagcc atctttgtaa gcccagcact 180

tgcctgggca ccagacacat gtagtatgtt ttcagtaatc gtggctgttc actagctgct 240

tgattgaaca ttatttgtgt gtaataatgt cattaaatta tgagaaaata aatacttagc 300

aattgaaaaa aaaaaaaaaa aaaaaaaaaa aggcgtgggg gaaaacgggg ccaagcgtgt 360

aacccgggtg gggaaaagtg ggtataccgc ggccccaaaa tgtcccccac ctcaccaata 420

gcgccagcca caaggagaga cggagcacac agccaacaat gagcagagca acgacaacag 480

aaaagagacc aaagcagaac acagacgaag gacccgacag caacaagaga gaccaccaga 540

agtgaagcga cagcgacgaa acagagcacg agcaacgaaa cgcaacagca aagagcagca 600

aaagcgtcag agacgaaagg ccgacagccg ggaatagaag gaaggcacag gcaacgccgt 660

gagccgacac aagaccaggg tgcgacacca agagccagca cagcgagtga aacagaagcg 720

agaagcgaaa aaaaaggacg cagcagacgg cagctggaag gcggacgaga cggagactga 780

gacgcagcac ggcggcgcgc gcacgggccg cggagtaggg agaacacgag aaagagcaga 840

caagcaccag cagggaggaa agaaacagcg cagaaggccc cgaccggcac gagccgacaa 900

gacacgccga acacacggac ggcagag 927

<210> 7
<211> 451
<212> DNA
<213> Homo sapien

<400> 7

tttttttttt tttttttttt ttttttttgg ggccaaaatc cgggcttata ttttgggcca 60

aaggaaaccg gctaaaattt attcccaagc cttttgtgtt taaggttggc aaggggggtt 120

ttggtcccca aaaccccttc cagttgtgtt aacccactta ttttattggg gaaacaacca 180

aatattatta ttacaaattg ggtggggcgt ctaaaaaacg cccaattccc ccccaaggtc 240

taaacctctt ggtgacattg gggaattatt tatgcgcaaa tggaagagtt atttgggggt 300

gatcactcct aatgttaaac cagagcgaca gagatatacg catctagagg gcgaagaata 360

aaaaaatggg cgcaggatct gtatgcgcaa ttatcccaga ataacgtttc cttaaatata 420

caggtatcca gcccccaaag taggggggcg c 451

<210> 8
<211> 651
<212> DNA
<213> Homo sapien

<400> 8
gcccgggcag gtcccctccc tttttttttt tttttttttt tttttttttt tttggtaggg 60

gaaaattttt ttttttaagg gggtttccca aaaaaaaaat ttttcaggga ataaaaaata 120

aaatctttaa aatttttccc ggttttattt tccccccccc cccccaaaag ctttttgggg 180

aaaaaaaaaa tttcagtcta aaaacacccc tggatttgtc ggtgggcgga tcaagagagg 240

tggacagaat tagtctgccc tcctctcaca acagacaact cctcgtgtgg ggtgtggtcc 300

tccctctcag agggagaggg gagtgggaag tgccgcctcc cacatattca cttgttgggt 360

gcaaggggac gagataaaaa aaaacggcgg ggcgggaaca ctcaggaggc gccatcatgc 420

gtgtgtccgc cgttgtgtgt gagaaaatgt ggtgtctacc gccgcgcgcc acaaatatct 480

cccacacaca aatatatcga gcgcaaacga acaacgggag gaggcggagc agccgacgaa 540

cacggagcag ggcaggtgag gaaaagcccg ggcaaacagg agacacagga agcaaccgaa 600

gaggcgtaag ggatagaaag aaggacggga cgagagcaac gaaaagcgcg c 651

<210> 9
<211> 103
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (6)..(6)
<223> a, c, g or t

<400> 9
atggtngggt tggtctgcat tcagtgatgc aagtagggat ctttgcgtag gtcggtctga 60

agtgtggctt tatatttgat ccacacacgt ggtcttttaa cca 103

<210> 10
<211> 452
<212> DNA
<213> Homo sapien

<400> 10
tggtcgcggc gaggtaccta tttcatgaca aaataggcag ttttaaaaga ataaacaagc 60

taggtgtggt ggctcatgcc tgtaatccta gcactttggg aagccaaagc tgatggatcg 120

cttgagccca ggagtttgag accagcctgg gcaacatggc aaaaccccat ctctacaaaa 180

aatacaaaaa gtaggccggg cacggtggtt cacacctgta atcccggcat tttgggaggc 240

cgagataggt ggatcacctg aagtcaggtg tttgagacca gcctggccaa catggtggaa 300

cccaatctct actaaaaata caaaaaaact agccggatat ggtggcgggt gcctgtaatc 360

tcagctactt gagaggctga ggcaggagaa tcgcttgaac ttgggagcag aggtgagctg 420

agtgcagtga gccaagacca tgccattaca ct 452

<210> 11
<211> 576
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (318)..(318)
<223> a, c, g or t

<400> 11
acgcctgtag tcccagctac tcaggaggct ggggcaggag aattgcttga acccaggagg 60

aagaggttgc agtgagccaa gatcatgcca catcactcca acctgggcaa cagaacaaga 120

acccatctca aacaaacaaa caaacaaaaa aaaaaaactc tggtctcctt aaggatatgt 180

taccggctcc atggcagact agagaattaa ttgtgtttgg aacccttta ccgtgcaaaa 240

ctgtgaaaat gtgctagaaa aacccaagac atgaacgaat taaattacct gtgggtggga 300

caacacaccg ggccttgntg ccttttgct ttattacatt ggctacagta agctaaggtt 360

tagaaaaggc taggcttggg ttggtattct ggaaccacat tggaatctcc ttttcggggc 420

gctcaggtgg taggagaagg gcaccacgcc caagattcct tattagggaa ttgaattacc 480

ttcaaatcct tggtgggtcc tggaagattc tctataaggg aaacggattt taaaaacccc 540

acctggggtg cccatttttt ttaaaacaaa aaaaac 576

<210> 12
<211> 707
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (390)..(390)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (497)..(497)
<223> a, c, g or t

<400> 12
ttttttttttt ttttttttttt tggaccaaaa tccaggctta attattggac caaggaaaac 60

agctaaaatt tattcccaag ctggtgtagt taaagttggc aaaggggggat tttggtcccc 120

aaaacacttt caaggtttta acaccctaat tttatttgga aggaaccaac atattattat 180

ttcaacaatt ggttgggctt ctaaaaaacg cccattcccc tccaggtcta aacccttttgg 240

tgatatttgg attattaacg caatgagaat gtatatttgt ggtgcacaac tctatgtata 300

acaacaacgc agaaatatag acgccactag aaggcagcat ataaaaaaca aatatctggc 360

gcccaccaga cactgttatt cgccatattn ttccccaaga tataacgcta tctctttaag 420

atatccccag gttttcccga ggcttccccc aaaagagtat ttggggttgg gccccccctat 480

aatataaaga cactttnaca ccctttttat ctgtgtgagt gtgggctcta cacacaaaac 540

aatattaaga gttatttcac gacaacagct gtgtttccta cacaaagagg ggacagagtg 600

tttatagtct ccccactctc ctcaaatctc ctccatttaa agaggtgtgg agagagtcta 660

gaggggatgc ttaaagaccc aacaattaag gtgtggggtc tcttttc 707

<210> 13
<211> 448
<212> DNA
<213> Homo sapien

<400> 13
agggtgcttc tgggcgtcat gcctctgctt cctggatcgc ttgcctcttt cttctcgctc 60

acttgcgttg acctctcgtt gcgcctctct tcctccctct gccccctgtc tttgcctcct 120

tgccctcccc ccatccctgt ccccctcgcc cgtccctccc tcttcttcgc cgctttctcg 180

cccctctcct cgctcgcttt ccggtcgcct ctttcgtcgc actacgtcct gctacccgac 240

gaccgcttcc gcgatgtgcc tgccgtacct cgcacatcca ccccccccctt ttccaccgct 300

tcacgccttc tccggcttca tcccacctcg aaactccgcc cctatcaccc gccgaacacc 360

gcaccttgtt gcaacacccc ttcccaccta cccgcacacg cacccgtccc tccctcccgc 420

cacctacccc tttccccact agcttccg 448

<210> 14
<211> 689
<212> DNA
<213> Homo sapien

<400> 14
cgagcggcgc ccgggcaggt ccccctttt ttttttttt ttttttttt ttttttttt 60

ttttttttt taaaaaaaag ggattggttt tttaatttgg gggggggggg ccccaaaagg 120

ggggaggggg ccccggggag gggggggcg ggggaagata attgacagaa gtcggttggt 180

acgtgaaggg tgcgtgttgt ttagtgaaac gaccgcgccg gccacggggg gtcccaccgg 240

gccgcctctt ctgtggaaag gggacctctc tgtatgggag gaggtctcct gtatcccccc 300

tttcttgggc ccccacttca ttttaagaaa ttgtctgaga ctttcctgct ccccccccacc 360

tgggtggggg cccgatctct accatagagg cggcggcaga gagacccccg gggggctccc 420

ttctgtgtgt taccttgtgg tggcaggggg cagtcaaaat gaatcgtgtg aatttatcaa 480

gaacagaggt gggggggacaa cacagtgggc ggcaaccaag gtgtgttcgc cgcgtggttg 540

gagaaaattg gtttcctccg ccctcaaata ttctccccaa aaatattgtg ctttaccata 600

gtgctgcagg atgtaggtga cacaatgcag cacatccaac actaaagtag cagatcatca 660

ccccataaca aatcagaaaa aataagtcg 689

<210> 15
<211> 1032
<212> DNA
<213> Homo sapien

<400> 15
cgggcgcccg ggcgggtaaa gtcctagatg agtctagact aggcatatgc tttgggataa 60

ataagagaat aactccgatt cagtatgccc caatgcatag caatgccatg tgcatattta 120

ctctataaga aatcatacag atagggtccc gggtatggta gattgtccat aataggttca 180

ttacgttatg tcacgcccca acaattagac aagtggtaag gccgaactcc tactacggta 240

gttggctcag actataccca taagcgcgta tactgttaga aaatgataga tgtcaggtta 300

taatatcaac ggaatgagcg gttacgagat aatgcgttct tcggtcatga caggagcgta 360

ttgtctccct ttgataaatt tgtggttgcc tctttctatt gcgcattgat ttcgctctta 420

tagatcagtg atttccttcc cgacactagt gtcggtagtt gtcgcgtgac tattccgact 480

agtgatgcct tggtttgcct ccttcagtgc gcatcttgta gcccctgttt aagctctctc 540

ctgatgataa tcggaagtta ggtcagactt aaatggtaat tcgcaggaag agtggagagt 600

agaatggaga aggggcacga gtaaatcggt tggaagcatt ttagaggcca tttggaaaaa 660

tttcccgggt gcctaggttg ctgtccggac ttcaggagtc taaacggtct cgtggttcgt 720

ctaaggggtg tgtgatagcg cgcccatttt taattacaac agtgcttgct tatagctaat 780

ctgaaaaaca caactggcac ggtgcatccc ttcttccgtt ggcaatttca ttttgagtat 840

cccagacgtt cctacgaatt gttttaacct gaagaattgg gcctaaatgt ttggggtccc 900

ctcccaagtg gtgactctgg tggttctcgt agggggggggg tggggtaggg ggtaccttag 960

ctttttttat acctgaaagg cttgggcgta attccatggt ccataaggct gttccctgtg 1020

gtgaaattgg tt 1032

<210> 16
<211> 678
<212> DNA
<213> Homo sapien

<400> 16
acagatagaa aattctgcat gtttgcagtg actagaatca gatagtagtg tggtggtttt 60

tttttttata atcattatga acgaggggga gcttgcaggt aagggcttct gggcggggtt 120

tggaaaacgc agaaaggcaa taaatggaac acaaagtgtt tggtggtaat atattcctgg 180

cctgtgtctt ctttcacctc agagttggaa atcaggtttt ggcgaggtaa agctgggcaa 240

aaaaacaaga aacacaaatg gttcaaaact ggggtggtgg tgggtggggt gggaatttcc 300

cctctggctt aaataggtag ttctccagct agtacactat ttatgttact tttttctccc 360

tttccttttc tcacagggcc accagaaaac tggaatctgg taagataacg gaggggagac 420

atgacttggt cttggcaaca ctcgggggtg gattttatgg tatccctgtg ggacaccttt 480

taaaagctat tttcacccag tttctggtca aggcgaattt ttcaggaccc tactagtggc 540

gctacgaacc ttttcccgtg ggcctttac cggcgcaata gcacgccttc cggatattac 600

ctcatccctc agtaaataat atccgccatt tctccacaca acacacaaaa aaaaacgggg 660

ggcaccggcg caagcgcc 678

<210> 17
<211> 1441
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (143)..(143)
<223> a, c, g or t

<400> 17
cgtggctcgc gggcgcggta ccaagctccc cccagatctc ccccatacat cagccacgaa 60

gcaagtcgtg ggtaggtatg gtgagtgggg gaaatcaggc actgttagtg gtacacaggt 120

ggatcccgtc gtatcctgta tgntacctcg cttgtgagcc atttgatctg ggcatccgtt 180

cccagtcctg ttcccaaccg tccattgcaa ggcaagcagg gagagcaagt gtgaacgtcg 240

tagagatcct cttcattcct ctacgttccc cgagccctag gcctggagag gcgaaggctt 300

ggcggtactc attgggtcat acgctggtgc tccttggtgt gcaagactct gttgatcgcg 360

cctcacatac ttccgacaca tacactaccg gaagccatcg ccatttccct cacaaatgag 420

tgacaagtag ggacgttctc tgagcggtca tacaagtggc tcgttcaggc ttgttcttcc 480

cgtgtggatt gcctatgcca tgggtgcaca tacgctggag tgcaatccat agctaaccca 540

ggtgattata cgacatttac ctgaaagtcc aacacagaag ccagcgacgt tagccagcta 600

ctataccctc gttgcgattc aagaaacgtc cgacctagac agactctacg agccgttaca 660

aataccgcaa tgcattagac caacgaacca aaaaagtaag cccatccaga aacatagaag 720

gagcctaacg acatcagaat gcgcgcgaac caagaaacac agagacgtcc aagacatacg 780

ctcgaaacaa aacaacgagc gatccagggg gggacacaat aagtatacca catgggcaag 840

aatcacacac tcaagtaccg aagcgctgaa aagccatctc caatagaggg ccacagaaac 900

accaaccgca atggaagccc gaatgccaac ggggaccaca gtctgtaccc cgttagaacg 960

gacaaaaaaa acgcacacta aaggaccaga actacggggg accagacgcc aggcggaatc 1020

actgcgcaaa gaacacccca acggaccctc ccaaatgcat ggcgcaaaac cgcgcggacc 1080

attgccaagg caagagaaca tgcgataagt aacagaaaca cccgcacaag accatgagac 1140

agaaacaagg gaatcacccc cgcccaaacc accacgttga ggaatcacca acgaataaac 1200

aacaacacac cgagcataga caagggaata acgagaaaca gcaaactagc aaaccactgg 1260

acacaagaga aagaatagca aaggccacaa ggaccgatga acacacacaa aaaagcagga 1320

acaacagaac aaacagaaac aaagcaacac atacagagga ggacagcagc ataaccgcac 1380

aagaccgaag gaggatgaaa acgagaaggt gagccactaa taggaagaaa gcacccgcaa 1440

g 1441

<210> 18

<211> 581
<212> DNA
<213> Homo sapien

<400> 18
gcggccgccg ggcaggtccc ccccccttttt ttttttttttt ttttttttttt ttatttaaaa 60

aaaaaaagcc ccaaaaggga aattttgaac aaaataagga ctcccttccc ctccaaaaat 120

aaaaaatggg gggggttggt tggattgggg ggcaaccaat ttaaaactcg tgtttttccc 180

cctagggagg ttagggagaa gtatatttcc caattttccc caaacggggt gttatgaggt 240

aaagtcctgt gagaacgaaa ggggtgaggc ccttaaatct gtcatatatt ataaacgtga 300

tttcctctct acgagcggtg gtggattttt ggaatttcct tattctttgt ggtctttata 360

gccccccata ttttatagag caccaaatgt agtgtgggct ccataattcc aacatagtta 420

cttggggtgt tactactaga agtgcacccc gtgataatcc actttctcca agataactcc 480

ccgtgaagcg tgggcggtta cacaggggct cactagcgtg ttcccgggtg gtgatcatgg 540

ttatccgcgt cacatttcca cacaaattag atgcgaaaaa c 581

<210> 19
<211> 901
<212> DNA
<213> Homo sapien

<400> 19
atggcgtggg tgagcctgat gctatggtga ctactcaata atgcgtgcgt catgccgttc 60

cgtcggaact gataagtgac caggcaagca aataacatga aatcggacaa acagacgcgg 120

gtaataaggc ggatcattgc agtattgatg cgctctatcc gacttcctcg tctccacatg 180

acatcgacat gcagacttcg gatcgttacg tcttgacggt agacgccgag gtactcagac 240

tcacctccaa taggcgcgta aatacggttt atccacagta attcagggga taacggcagg 300

gaaaagacac atgttgagcc aaatggcaca agggaaaact gtgcacggga cacccgaaaa 360

aaaagcggcc gcgtttgttt aggtgttata tccaatatgt gctaccgaaa tcccactaaa 420

tgaagtatat tcacaaaaaa ttcgactgca tcaagagttc agaggatggg cgaaatccca 480

gaagagggac ataattaaag gaaaaaccat agctgtattc ccacatgtta aaactcacct 540

cgatgcgcat catcctggtt cctgaaccaa ttgctgatat acagggatac ctgattcggc 600

attttctacc ctttcgagca aagcgtgggg cactttctca tttgactcac gcctgtaggt 660

tattttcaac atacggatag ataggtcgta gcgcatccaa ggtagggttg tgtgcataaa 720

cccccaggtt tagctcgaac gcatgcctat cggagactat ggattgagcc gcccgataag 780

cacactttag cccatgcgag agcactggta agattacagc aggagattaa agcagcgaaa 840

agagatctaa gtgtagacac taagatagta gaaaaaggta tggtatgagc cataaaacaa 900

a 901

<210> 20
<211> 658
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (123)..(123)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (128)..(128)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (183)..(184)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (197)..(197)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (199)..(199)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (204)..(204)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (209)..(210)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (216)..(216)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (221)..(221)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (234)..(234)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (260)..(260)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (270)..(270)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (274)..(276)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (285)..(285)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (294)..(295)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (300)..(300)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (302)..(302)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (304)..(305)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (310)..(311)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (316)..(316)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (318)..(319)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (324)..(325)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (331)..(332)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (336)..(337)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (460)..(462)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (492)..(493)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (521)..(522)
<223> a, c, g or t

<400> 20
acaggttggc aggaccacct ccgcctactt ctccaccatc cctagcatgt ccagaccgct 60

gatatccaca gcatacacac catgacccag atgagcagct catgcgccag ttggcacctt 120

ccntgcgnag atcacaagta gagtgacacg tggcacgtgg cttagcacga agagtgtact 180

gcnntccagc atagacncnt gtgnatgcnn taccantgcg natgggtctt actntggcct 240

tccccctttt cttccacagn actacagagn tgtnnnccct gtagngcgtc tccnnctcgn 300

gnannacagn ntgccntnnc aaannтcctg nnaccnncaa tgggacccag cccatggcgc 360

gacacgacga ctgggttggc acggccacaa actgccacct ttactacgac gacttttcct 420

tattggcctg gcgaacgcgc tgtgtttcct cccccacaan nntttgtttc gtcgacatac 480

ttccaccctc gnnttttaat agacatggtc tcgaacctcg nntcttgacc caaaaacaaa 540

acaacacaca aaacaaacaa acggcttggg cgcgtaatcc ggtgggccaa agcggggtcc 600

ccgtggggga cattgggtaa ccgggtccaa aattcccaca aaattcgcgg acaaagtg 658

<210> 21
<211> 969
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (447)..(447)
<223> a, c, g or t

<400> 21
gcgtggtcgc ggccgaggta cccgtgcgca cggaggacgc cgagttccat gtcccggagc 60

cctggacatc tgacgtactg ccgtgggttg atgcactccg cagcggacga aggagctgca 120

gtcgaaggcg gctcgcaaga agtcttgaag agggctcaag agtaaccgtt gttcccactc 180

tatgcagaag aagtatggcc aagtcctcca tgtgtgatcg ccggttgcag cacggtgtgc 240

atgatgatgg aaatggggca acggagtcgg gaatgcgtgg tgtgacatgg tccccggagg 300

aaccgtcctg gcaagtatcc gtctcctcgc tggaagctgt cttagtgaag tggggcgatc 360

gcatttgctc cgtccactag cattctccca gtcgcacatc tagcgtgtgt ccaccatgca 420

gtgagccatg cggcctgttg ccatccnctt gagacgttgg gggctgtaac gtcagagcag 480

gattaagacg gttctctcaa cttgttgcgc gtcctggata tgtggacaca ggggtgctac 540

ctttgtccct aggccttgtc ttcaaaagaa agtaaaaagg aaacaagcat ttgagggatc 600

gtttaacaac agagagaaac agacagaaga atgagaacac ataagacaag tccctctgga 660

ggcgacaacc tcagcggggg gccaggagag gctgtgggga ccccccgggt gtgtgagaca 720

atgtgggtgg ggagcacctc gcgggtgctc cttcaccaag aagaatttcc acccgccacc 780

agcgaacata atcaggcgac cagaagagaa agacaaaaaa agcgaggcca gagtaacagt 840

cgagaccgag cgacgaaggc gggggcacgc aggagcacat gggaggagat tggcaggacg 900

aggagaagac caagaaaagg ccaaccgaat aaatagccgc tccagagggg aggcagaaaa 960

gggggggaaa 969

<210> 22
<211> 709
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (243)..(243)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (617)..(617)
<223> a, c, g or t

<400> 22
tttttttttt tttttttttt tttttttttt tttttccccg tggtttaaaa actttaattt 60

tttttgggct tttacaaaaa tttttaaaac attttaaaaa aacccccccc ttcccccatt 120

tccggttccc cgggcggggg gtaaaagggg gacaagggtt ttttcaccgg ttgtggcctt 180

cggggtttgg gagggcttta aaaccaccca ctctccgcca aacaatcttt gtgcgacgtt 240

ttnctatatc ttgtgtgttt aacaataaca acgagagtaa tatctccccc tcgtgtagtg 300

tcgcaacacc cgtggctcca cgccacttct ctctccaaca acacgtgctt gggggtgtgt 360

acccgcgagg cggctcaaga gcgcgtggtc gccgctggga gtgggaacaa gttgggtctc 420

atctagcgcg cctcacacaa tctcccccac caaccaatca tctcgacgag accacacagc 480

cggcgtgctg cagccagacc acgcgaaagt ccagagaaag atgcaagacc aagcacgaac 540

gaataaagag caacagacaa ggaccaaacg cagcgaacaa gcaagctagc aagacgacca 600

agcagcacag aaccagnaga gcaccaacaa gcaagacaga caaacgcaag ccagcaggag 660

acacaaacgc aaagcaaaca caacagaaca acctaagata cgcaagtag 709

<210> 23
<211> 402
<212> DNA
<213> Homo sapien

<400> 23
gaaggggtgt agtgtaaaga acaaagctaa tattataata ttcaattttt gtgaaggaag 60

tatgaatgaa atagtagtca tatccttcat aatgaagggg cagtgattag ttacaatgag 120

aagattgatg attatcttga tcaaaatgaa atgataatat tgataatgta aaatatgtct 180

ttatctttgc gtgtcattgt gttaaggtgt gtattctatt tgtcatggaa ttcttaattc 240

aaatacatgt tctatataaa gagtatgctc ctattggatg aaaaaaacct aaaaaaacaa 300

aaaaaaaaaa aaaaaaaaaa aaaaaggttg ggggaactgg gcaaaggtgc cccgggggga 360

attggttatc ggtcaaaatc cacaaaaaat aggaggaaag tg 402

<210> 24
<211> 1441
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (155)..(155)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (247)..(247)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (394)..(394)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (533)..(533)
<223> a, c, g or t

<400> 24
gagcggccgc cgggcaggtt ttttttttt ttttttaat tggatcaaaa ttcaggggtt 60

aattatggag caaggaaaag cggctaaaac ttaatcccaa gcctgtgtgt gttagtttaa 120

gagttgtgca agaggtgggc atagtgggtc tcacnaaaac acatctcaga gtggttttaa 180

accacatatt tattgtgaag aaacaaaatt atatttaaaa tgtgtggtgt ggcgctctct 240

ataaaanagg cccatattct ccctctccaa ggtctctata aaccttgtgt ggtaattgtg 300

tgatatatta taagcgacac atgtgagagg tttatattgt gtgcgttacc aatctcatat 360

gtgttaaaac aagcgcagag aaatatagac gcanctataa gggcgagaga aatatataac 420

aatatgtgtg gcgcacagag agcggttatg tgtgcacata ttctctcaca cagagatata 480

gcgacattct ctcttatata aaattctcac gggtattcta cagcgctctc tcnacacaag 540

agatgatgtg gggtgtgcgc cgccataata tatatgagag acacttccta taacacatat 600

atatatatga tgggtgatgc gcgcgtaata caaacaaaaa aatataataa tatatataac 660

acggaaacac atgatgtgtg ctacacaaag aggaggggag atgatgtgtt gtagatgtgc 720

cacacaactg tctctcatat actctctctt tatacaaaga gaggtgtggg agagagatgc 780

tacaaggagg gtgatgagct gtaaaacgaa cgcgcaaaat atatatacat gatgggtgag 840

ggagtgcatc cttatatttt tctctccata aaatattccc ccggttgttt actaattcac 900

tattctcaca tattccgggg ggcgtctcct ctgggagata tatgcgcccc ttataggggg 960

ggtgctcacc cccccatttt tattacaggt gttctacaag aaggggggt tctggggtac 1020

aatctgggcc ccacctggtg gggggggggg cggaactctt gtggaaccac atcttggggc 1080

gccccccaaa ttttatttta tccccctcg ttggggttgc catttttcc cccttttttc 1140

tgccacaaac tggtgcgcgg gggggtgggg ggagacaatc ttttccccag aaaacaacag 1200

gggggtgag gggcgtttgg acgaggaaaa cacaaaacaa caattcctcc ccaaattccg 1260

aaaaaacctc ctcttctcga gggggggctc gaggagggtc ccgaggaata tgttggggcc 1320

aacaccacga gtggattaca cacatggttt cccccccccg ggggagaagg gggggggca 1380

ctttctcaca aaatacagag gggggtacgg gggggcgaa ccaaggggga gttaatactc 1440

g 1441

<210> 25
<211> 854
<212> DNA
<213> Homo sapien

<400> 25
cgtggtcgcg gcgaggtccc cccccttttt tttttttttt tttttttttt tttttttttt 60

tttttttttt ttttaaaaag aaaaaacggg ggaggggggg gggggggggg gggggagcga 120

tgaagaaggg gggcgaaggg gagaccagac agcggggggg ctcgtcccgc ggcgcgagcg 180

agggaggtta tcgtgagctg cgtaggagag gggtgggggg cgggccaccc ccgggggtgg 240

ggggagaaac tagtcagcag cggggtacat tagcgggggc gtcaacagta cagtagggcg 300

gccgcccccg tagaagcagc ggcgacggag tatatctgta tgcacagcga ggcagaacag 360

gcgtggcatc acacaccaca caagagagag agagtctccc ccaccgaggt gagataaaag 420

agagggggag gatgtaggag ggaggatcca cagccgggat ggcgtagcaa gacatactcc 480

accacaaaac atccttcgga ggtggcgagc aaccacgccg taaggaagag cctctactct 540

cgaagaaaga gagagacaat ccagatagaa ccgcagcaga gggagagagc gaggccacct 600

cccacaagaa aaaaagaaga gagcaagcga caagcgggca aacaacgcaa accacaaggg 660

tgagaagaaa tatataccaa cccgggtggg aaaaaacaat tagcaaacaa actgcactac 720

tgcccacgat aaaaaaactg gctggcgaga caccaagcgc gtgcaacaaa agctagtata 780

cccggcgggg gggaacaaag cagtacgacg ccgcacacaa ataccccccc caacaacaac 840

ttaacagcaa aaga 854

<210> 26
<211> 1672
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (568)..(568)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (1050)..(1050)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (1364)..(1364)
<223> a, c, g or t

<400> 26
ccgcccgggc aggtcccccc ccttttttct ttttttttct ttttttttg aagaaatttt 60

tggatcaaaa agggggccct taaaattccc gggggggccg tgatttccct atatttaagc 120

gtgggggggaa aaaaaaatct caaatttttac gcgtgattaa ttggttagtg tgcctccaaa 180

tgtgaattct agtgtgaccc ctctctgtgt tcacaatata aatatagaag agagcctata 240

atatattctc tcaaaacaca atatagagaa actctgctgt gcgcccacaa aacacacact 300

gtgtgtggtg tcgtctttat cacttgtgtg tgaactgtga gtctctcacc ccaagagaag 360

agagagtgtg ttactaagag gtgtgataaa gtagtttgtg tgagagttat agagtgtctc 420

tctctccaca aatatatatg actctctctg tgtgtgttat acaaaacatc tctctcttct 480

ctctctatat atgatgtgtg tatatatata tgatgagagt gtatatgatg tgtgtctacc 540

gatgtgtctc attctattat tataaaanca ctcctttata tatagaagaa tttctatatc 600

tatatatctc tcactctctc tatatctctc tctctacagt gtgtggcgga cacatatatc 660

tataacatat gatgtgtggg gggcgcgtgt gtagtaacaa tatatatata ttctatgtgt 720

gtgtctctct catcactgtg tgtgtgtctc gtgtgacaca aagagtgtgt gtgtacacag 780

tgtgtgtata tcaccctctg cgagcgttta tctcaccaca tatctctgtg tgggggacac 840

cctctgtgag agagaccact cttatgagag ggggaggcgt cccttatatc tcctcttatt 900

cacagcagag agagaagagt cctcgagagg ggggcgcaaa ttgttgtaga gggggggagg 960

acaccccccc ttatttttct tctgttctat actttgctcc cccctctctg atgagaaaaa 1020

atacgccgcc gtggggtgtg gcaacagccn ccctgttgtt gtgggaaaac atctcacacc 1080

acgagaggat ggtttttccc gccgaggtct tttcctcaca caacaaatac aaaagtaaat 1140

aaacaccaca agcacgagac gacaaaaaaa cacatcaaac acaccaaata caaaaaaaca 1200

aaaaaaagag ccgccggcgg gggggggga gggaaacaca acaaagccag gggggggaac 1260

acaaaaaaga cgaggagtta accaccagcg gagggagagg tacaaaccaa agagggttgg 1320

tgtatcaacc cgcggcgcgc gacaacaaaa aaattcccac ccanacaaca gatattcatt 1380

tatgtcatca tccgtcatca caacttatac gtaaatacag atgctcataa actaatttga 1440

ttactaaaat ccactaaaag attatcaatg acttagaact aaagtaaata cgatactcat 1500

gaattatcta attcttatat acaactcaca ctacagctaa catatataca ctactacaca 1560

tcacacaact aaagcaaata ctctaacatc gttcacccaa caacaacaac agtaaccaaa 1620

taactgctac atattacata tatatcattc catatattct tgaatacaca aa 1672

<210> 27
<211> 698
<212> DNA
<213> Homo sapien

<400> 27
gcggccgccc gggcatggtc cccctttttt tttttttttt tttttttttt tttttttttt 60

tttaaaaaat gctttttttt tttcttttgg gggggtgggg cccccggggg gggggggccc 120

ccaggagaag gaggtgggcc ctgggagaaa ttaattaaaa aaaagtactg tgaaaagaaa 180

agggtgggtg gtgttaaagt cgcatggccc aaggtggcgc tccctaagcg ctacgcgttc 240

tcatgagaga aggtgaaaaa cctctttgat agaaaagaga tctcatgtga gaaaacgcca 300

tatagcttgt gggccccacc atatctagac atattataaa aaaatctcgc tttgaaaaac 360

acactctata gcgtgtaacc accactcgcg tgtggtgggg tgtctccgag atttctctct 420

actacaacta gagagcgcgg acacagagtg taaacaccac gagtgggtct ccccttgggg 480

tgctccatgg tgtgaaaaaa gagagcacac atataagatc tcgcgtgtat atctcacaaa 540

taaaaaagtc cttggtgggc gataaacctc cgagggcaca caaaaagagt gtgttctccc 600

gccgtgtgtg tgaaaaaagt gtgtatatcc cccgcgccca cacaaaattc tccacacaaa 660

aaatattttg gccgaaacaa aaaattggtg taacaaaa 698

<210> 28
<211> 393
<212> DNA
<213> Homo sapien

<400> 28
accagaagga accctccagt cctgctctct ggccacacct gtgcaggcag ctgagaggca 60

gcgtgcagcc ctactgtccc ttactggggc agcagagggc ttcggaggca gaagtgaggc 120

ctggggtttt ggggggaaag gtcagctcag tgctgttcca ccttttaggg aggttactga 180

ggggaccagg atgggagaat gaggagtaaa atgctcacgg caaagtcagc agcactggta 240

agccaagact gagaaataca aggttgcttg tctgacccca atctgcttga aacctgactc 300

tgcttctctc atttgtcttc ctaccctact cacataattc actcattgac tcactcattc 360

accagatatt tattgacctg ctattataag ctt 393

<210> 29
<211> 3470
<212> DNA
<213> Homo sapien

<400> 29
gcacgagcct gtgcctcctc ctcgtccctc gccgcgtccg cgaagcctgg agccggcggg 60

agccccgcgc tcgccatgtc gggcgagctc agcaacaggt tccaaggagg gaaggcgttc 120

ggcttgctca aagcccggca ggagaggagg ctggccgaga tcaaccggga gtttctgtgt 180

gaccagaagt acagtgatga agagaacctt ccagaaaagc tcacagcctt caaagagaag 240

tacatggagt ttgacctgaa caatgaaggc gagattgacc tgatgtcttt aaagaggatg 300

atggagaagc ttggtgtccc caagacccac ctggagatga agaagatgat ctcagaggtg 360

acaggagggg tcagtgacac tatatcctac cgagactttg tgaacatgat gctggggaaa 420

cggtcggctg tcctcaagtt agtcatgatg tttgaaggaa aagccaacga gagcagcccc 480

aagccagttg gccccccctcc agagagagac attgctagcc tgccctgagg accccgcctg 540

gactccccag ccttcccacc ccatacctcc ctcccgatct tgctgccctt cttgacacac 600

tgtgatctct ctctctctca tttgtttggt cattgagggt ttgtttgtgt tttcatcaat 660

gtctttgtaa agcacaaatt atctgcctta aaggggctct gggtcgggga atcctgagcc 720

ttgggtcccc tccctctctt cttccctcct tccccgctcc ctgtgcagaa gggctgatat 780

caaaccaaaa actagagggg gcagggccag ggcagggagg cttccagcct gtgttcccct 840

cacttggagg aaccagcact ctccatcctt tcagaaagtc tccaagccaa gttcaggctc 900

actgacctgg ctctgacgag gaccccaggc cactctgaga agaccttgga gtagggacaa 960

ggctgcaggg cctctttcgg gtttccttgg acagtgccat ggttccagtg ctctggtgtc 1020

acccaggaca cagccactcg gggccccgct gccccagctg atccccactc attccacacc 1080

tcttctcatc ctcagtgatg tgaaggtggg aaggaaagga gcttggcatt gggagccctt 1140

caagaaggta ccagaaggaa ccctccagtc ctgctctctg gccacacctg tgcaggcagc 1200

tgagaggcag cgtgcagccc tactgtccct tactggggca gcagagggct tcggaggtag 1260

aagtgaggcc tggggttttg gggggaaagg tcagctcagt gctgttccac cttttaggga 1320

ggatactgag gggaccagga tgggagaatg aggagtaaaa tgctcacggc aaagtcagca 1380

gcactggtaa gccaagactg agaaatacaa ggttgcttgt ctgaccccaa tctgcttgaa 1440

acctgactct gcttctctca tttgtcttcc taccctactc acataattca ctcattgact 1500

cactcattca ccagatattt attgacctgc tattataagc tttacatcct cccatgttgt 1560

cctggcatgt gcagtataca cggtctaact catctctccc cagatctctc agaaccttga 1620

gcttgggaat tgaactgggg tcacctgtgt cctttcttat ggactcgcag gattttagaa 1680

ccctaatgca ccctggaggg tagctgggcc agacttctca tttcacaggt gaggagactg 1740

gtgccccaca gggattaagt gccttgccca aggtcaggct tatctccaga gggaggtgcc 1800

ctggactggg gcccagatgt tcagggaccc tgcctacacc tcatttccag tgtgggctgc 1860

cttagttagt tatgagaaca gggaagggct gggaagagac agcctccaag gtcaacactt 1920

ggagagggtt tcacttgctc tgaagaccct ggtccaggat tcgccctctc ccatgccttc 1980

aagtcagcat caggcttagg gcaaagacca ggcctctgaa gctgcctctt gtaattcatg 2040

caggaagatg tcaaagtcag ccccatcttg gctgatcagg gtgttcagcc ttaaccccac 2100

ctgtgttctg aagtctctta ccctacctgc tcaggactga gacagttatt cactgaacat 2160

atttattaag cacttgctgt aggccaacag ttaagaatcc aataatgaaa tggacagatt 2220

catggaactt agagtccaat aggaaagtga gacccagaca atgacaatga gataaatgtt 2280

aggaaggggg aggtatgggg tgacttccct gcagtcctgg gggcctagat gggcccaaga 2340

ctgggtgaga gtcttggcag agcctttgca acaccttaag tggacaggac tgggaggtct 2400

tggtggttgg agccaacgtg ggttccctgc ggctccttag tcacctctga tagcagattg 2460

agggaggaaa acaggtaagg catgaggaaa tggccaggtt gggttaaccc actggtttca 2520

accagttcag gaatgaggtt atttggccat gactggctga tcttgagctc aaggatctgc 2580

ttcaaatgca cacaggccta gttgaagttt aaaccccagc aaaacattcc tccctgtaaa 2640

tggaaaatcc tacttctacc cccaccctgc cctgtttttt gtttttttct tccccaagat 2700

cattagatgt cctcacccct cctcactgcc tctcctctct gggacaggct gggacctttg 2760

aggaagataa agccttcctt gactacccat catattcagt gtccctgttc ctcactcaga 2820

gaggaaggca gaaccagtca ggcttatttc agtaagttcc acagttctac aagactgcag 2880

gaattctcct taagggagga gagcaagcag gtgtggcccc agcttctgga aatggcagaa 2940

gagagggttt tctcattgaa tgggggtggg ggctcgtgtg tcctgggaaa ccccatcagt 3000

cccttcattt cttgagactc aactcctggg aggagagggt ctcaagagtt gtccctggaa 3060

ggagggcggg ggcagtctgc atctatttca ggttgtggct cttggttcta ggactcttac 3120

ttctctggct aagggctcag cttcttggga cttcaaccat cttctttctg aaagaccaaa 3180

tctaatgtaa ccagtaacgt gaggactgcc aagtatggct ttgtccctat gactcagagg 3240

agggtttgtc gggcaaattc aggtggatga agtatgtgtg tgcgtgtgca tgggagtgtg 3300

cgtggactgg gatatcatct ctacagcctg caaataaacc agacaaactt accaacgtct 3360

tgattggtgt attttggggc tggttctggg ctcagcaaat tgcgaactag ctaatatagt 3420

aagagattaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaat tgcgtcggcc 3470

<210> 30
<211> 484
<212> DNA
<213> Homo sapien

<400> 30
gatggaatgg ccttgaaaga ttttagtgca tgcacttgac ttagatagga tctttactga 60

cccttgctta cttaggagtg gcagagttaa ttggtggttc agatattaag gggctactgt 120

cactctgata tgtagctttt ctatcatctc tgtaacttag cttcaagtaa ctagaagagt 180

aatctaaaaa aaataattag cctttaatca gattgcctgc agtgtttctt ggtcacttta 240

aagctgtgac tttgcatgat tgctaggtaa gttcacttaa gaaataggaa attcaaatta 300

tttatgtttc aagtatttt gaacaggtgg taaaatgaaa ttgattttta tcatctttga 360

atgaaagtaa cagcagatat tcaatgagtg acttattttg tggacatttt tgtcctttgg 420

atatgatgtc atagagtcac aatatatttt cagccttttt tgagaaataa gtgatttaga 480

catc 484

<210> 31

<211> 1299
<212> DNA
<213> Homo sapien

<400> 31
gttaaatgga tgttatgtca tatgcaatgt tgataggtat atgtggattt caagactttc 60

ctacttagat atttctttag aagttcctta ttgagggtaa tgatgttttt aaagaacata 120

gaacattctt tatgttttaa aagaatcatg ccttcattaa gtaggcttta ttctaagttt 180

ggaactgaga ctgttatgct tttaaagtct ccaacagaga ggttaaggag ttaacctggg 240

gcatgccaga actgggatgg aatggccttg aaagatttta gtgcattgca cttgacttag 300

ataggatctt tactgaccct tgcttactta ggagtggcag agttaattgg tggttcagat 360

attaaggggc tactgtcact ctgatatgta gcttttctat catctctgta acttagcttc 420

aagtaactag aagagtaatc taaaaaaaat aattagcctt taatcagatt gcctgcagtg 480

tttcttggtc actttaaagc cgtgactttg catgattgct aggtaagttc acttaagaaa 540

taggaaattc aaattattta tgtttcaagt atttttgaac aggtggtaaa atgaaattga 600

tttttatcat ctttgaatga aagtaacagc agatattcaa tgagtgactt attttgtgga 660

catttttgtc ctttggatat gatgtataga gtcacaatat attttcagcc ttttttgaga 720

aataagtgat ttagacatct tacacagtta ctgagcacct ggtacagtga agatctctca 780

agaatgattt gtgtgatgta gttcggtgga tcatccagca gagggcagta gagccagagc 840

catagtaaaa gttatagtaa agttgctctt agcaacttga gtcttactta gatttaattt 900

tgcatagaac caaaagttca gtttagtagc cattttcttt aaagtcaggc tgtagtggtt 960

ccgaaatgaa aattaggccc tgattttatg taagatgatg tccaatcttt aattgacacc 1020

ttaaaaatat taaaagatta tgataggatc aggaaggagt ttttgaaaat gcaatttgta 1080

gtttttaaca agtgatgtag aataaataaa aagaagtact ttttaaaaag taagtataaa 1140

attattttcc agttaactat gggatataaa tgattgcttt aatacaggta ttcctaacct 1200

gtacagcatt tcctaacctg ctctgtgaaa aacaaagaaa taaaacttag tgctctcttt 1260

aaaaaaaaaa aaaaaaaaaa aaaaaaattt ggtgcggcc 1299

<210> 32
<211> 771
<212> DNA
<213> Homo sapien

<400> 32
cgtggtcgcg gcgaggtacc aagtgtgaac tggggtcatt cggtctgtga tctcgttgca 60

ctgctccaag tctggctgtg tccaggcggt ccatgttgaa aatggaggat ggctgctgac 120

ttctgactgg ctgagcagtg ggttccttca ggttccttgg ccaaccctcc tcccctgccc 180

acaacttctc caaacaaagc aggctgtttg ctcacttctt caaaaggagg aatgataacc 240

caaatctgcc caagtgacac ttgagaaggt tttggctggg gttcctggtg gatttcttac 300

tacctaacgc ccaagaaaac caactaagga ctctcaaacc atacctggtg ggggttcttc 360

gctcaacctc ttcttcccta ggtcaaagcc actatcatct gatgtgttag ggatgggttc 420

tgattggcag aaattaatca gctcccaatg ggagcccacg gaactaagta gggtcccaag 480

aaaaaaaacg ggagctattt cacagagctg agcttctgcc aaatttcatt cctcaaacct 540

ttcaggaggg gtggttggcg tttctaaatg tttatgggat ttgagttgca ggtgtccact 600

taactgacta ctttgataac aatgtcagat tttaactata aaacgacatt ccttgtgcat 660

ttttatattg attcctattt ttttttagat taacgttaaa tgtttcccct agtcttcctt 720

ctactgtata gagcttggta tcatgtcata cgttccgtgt gaatgttcgt c 771

<210> 33
<211> 4908
<212> DNA
<213> Homo sapien

<400> 33
atgggagatg tggtcaaaag atacaaaatt tcagttaaga ggaataagtt gggcaacatg 60

ttgccaggtc gaattggatt ccagtatggc ttgcggtggc ctaccaaggc cgcgaggggc 120

ggccggcaga gcgacgcgga accccgccgg cgcggacccc ggaccccaac gccgcccgcc 180

cagccgcgga cgcccctgcc cggagccctc gccgcccggg ccgccctcga gggccgggag 240

cggcgcccgg cggccgcgcc cgcaggccct gcctctgctg gaaccttccc aggcccctcc 300

gacctgaaag cccagcccct cctgctgccg ctgctgccgc caccacgcag ggtagccgca 360

gaggcccagg aatcttggca ggcgtgggga ggcagcgggt ggcgggtggc gctccggaaa 420

aggctgcaaa tgcgaaccag aagcacgtcc acggacgcca tgctggggac tctgacaccc 480

ctgtcttcgc tgctgctgct gctacatggt gctggtgctg gggtgtgggc cgcgggcgtc 540

ctctggtggc ggggccggtg gggcggcggg ctatgcccca gtgaagtaca tccagcccat 600

gcagaaagga cctgtgggac cgcccttccg tgagggcaaa ggccagtacc tggaaatgcc 660

tctaccgctg ctgccgatgg acctgaaggg agagcccggc ccccctggga agcccgggcc 720

tcggggtccc cctggccccc ctggcttccc aggaaaacca ggcatgggaa agccaggact 780

ccatgggcag cctggccctg ctgggccccc tggcttctcc cggatgggca aggctggtcc 840

cccagggctc cctggcaagg tcgggccacc agggcagccg gggcttcggg gggagccagg 900

aatacgaggg gaccagggcc tccggggacc cccaggaccc cctggcctcc cgggcccctc 960

aggcattact atccctggaa aaccaggtgc ccaaggggtg ccagggcccc caggattcca 1020

gggggaacca gggccccagg gggagcctgg gcccccaggt gatcgaggcc tcaaggggga 1080

taatggagtg ggccagcccg ggctgcctgg ggccccaggg caggggggtg cccccggccc 1140

ccccggcctc cctggtccag ctggcttagg caaacctggt ttggatgggc ttcctggggc 1200

cccaggagac aagggtgagt ctgggcctcc tggagttcca ggccccaggg gggagccagg 1260

agctgtgggc ccaaaaggac ctcctggagt agacggtgtg ggagtcccag gggcagcagg 1320

gttgccagga ccacagggcc catcaggggc caaaggggag ccaggaaccc ggggcccccc 1380

tgggctgata ggccccactg gctatgggat gccaggactg ccaggcccca agggggacag 1440

gggcccagct ggggtcccag gactcttggg ggacaggggt gagccagggg aggatgggga 1500

cccaggggag cagggcccac agggtcttgg gggtcccccc ggacttcctg ggtctgcagg 1560

gcttcctggc agacgtgggc cccctgggcc taagggtgag gcagggcctg gaggacccca 1620

aggagtgcct ggcattcgag gtgaccaggg gcctagtggc ctggctggga aaccaggggt 1680

cccaggtgag aggggacttc ctggggccca tggacccccc ggaccaactg ggcccaaggg 1740

tgagccgggt ttcacgggtc gccctggagg accaggggtg gcaggagccc tggggcagaa 1800

aggtgacttg gggctccctg ggcagcctgg cctgaggggt ccctcaggaa tcccaggact 1860

ccagggtcca gctggcccta ttgggcccca aggcctgccg ggcctgaagg gggaaccagg 1920

cctgccaggg ccccctggag aggggagagc aggggaacct ggcacggctg ggcccacggg 1980

gcccccaggg gtccctggct cccctggaat cacgggccct ccggggcctc ccgggccccc 2040

gggacccccc ggtgcccctg gggccttcga tgagactggc atcgcaggct tgcacctgcc 2100

caacggcggt gtggagggtg ccgtgctggg caaggggggc aagccacagt ttgggctggg 2160

cgagctgtct gcccatgcca caccggcctt cactgcggtg ctcacctcgc ccttccccgc 2220

ctcgggcatg cccgtgaaat ttgaccggac tctctacaat ggccacagcg gctacaaccc 2280

agccactggc atcttcacct gccctgtggg cggcgtctac tactttgctt accatgtgca 2340

cgtcaagggc accaacgtgt gggtggccct gtacaagaac aacgtgccgg ccacctatac 2400

ctacgatgag tacaagaagg gctacctgga ccaggcatct ggtggggccg tgctccagct 2460

gcggcccaac gaccaggtct gggtgcagat gccgtcggac caggccaacg gcctctactc 2520

cacggagtac atccactcct ccttttcagg attcttgctc tgccccacat aacccgcggg 2580

gggtgtcctg ctgccctggc ctcctccccc ttagtggtag agcgaccttt tcaattacaa 2640

agaacctcct ggaaaaaaaa acaaaagctg aacagaggcg gccgtggcct tggcccgagg 2700

agactaactt gctttctccc tgcatgcagg ctgagattgt ttctggaagg ggctggcctg 2760

agtttctttc ccccaaatgt ctgtgcagtg tcagggctgc accccatagg ccctgaggca 2820

cacagcccag ccccttgtga gtcctggcct ctgctgggcc ctgaaggagc tgagagggag 2880

ctcaactccc caccccgcca cgtggggaga cagcccttcc cactggctcc ctgatggcac 2940

ctgctggagg aaaggggcac ggcctccctc acagcccttg gctggggctc ctccagctcc 3000

ccctgggacc tccagcatat gacagtggac taaggactgt ggggttttcc tccaagggga 3060

agggagaaga ggggaccatc gaggtggcga gtgtggacac cctgccagga ctgcagcccc 3120

catggtgatg ctgtggcatc agacatgtcc gtggtgggca cagtgcctgt tgccctggga 3180

aagggcaacc tccctttcac tgctccagtg gcagccatgg ggaaggcagt ttgtgagggc 3240

ttggggcaca gacctggggc aggaggcagc tcttcacgtt catccctgtc tctcccgggc 3300

tgcccccgcc agctctggct gtttagcttg agggcagcac agaggcccct gggacaccta 3360

caggccagaa agatcaacct ctgtgaagtg tctagaagta tctagtgcag atggtggcgg 3420

aggcagaatc gaccatcagc aaacatgagc actcttccct ttctcccctt ccacctgctg 3480

cgggctgggc tggttttctc aatacaaaat tgtaagagga tccttgtcac cccagccagg 3540

tatccccaag gcagagcacc tctcgtttgg ccctctgaac aaggtgcacg cgagctgggg 3600

gatgaagacg gctcccactt ccttttcctt aataagaacc atatggtggg tgtatgtgtg 3660

tacaagaggg gttcatctgt gggggcttcc tctccttcca ccctctggtt ccaatttcct 3720

gttctaagca ggactagggc ccaggaggct aaggctggga gagaaagggt gccaacaggt 3780

cccttgggaa tgagttggct ctggacgttt ctgccctgtt ccccgatcag agctcctctg 3840

caggaaacag gcaggatgcc cctcccaacc cctcagtccc tacgtcaaac ggagtggata 3900

aggctgagat gagtgctggg agtggtggac attcctgctc gtgcaaagat ggccactttc 3960

cccgcagctg cagggcctcg cgctcggccc tcgccaggcc agccccactc cttgtaccaa 4020

gtgtgaactg gggtcattcg gtctgtgatc tcgttgcact gctccaagtc tggctgtgtc 4080

caggcggtcc atgttgaaaa tggaggatgg ctgctgactt ctgactggct gagcagtggg 4140

ttccttcagg ttccttgcca accctcctcc cctgcccaca acttctccaa acaaagcagg 4200

ctgtttgctc acttcttcaa aaggaggaat gataacccaa atctgcccaa gtgacacttg 4260

agaaggtttt ggctggggtt cctggtggat ttcttactac ctaacgccca agaaaaccaa 4320

ctaaggactc tcaaaccata cctggtgggg gttcttcgct caacctcttc ttccctaggt 4380

caaagccact atcatctgat gtgttaggga tgggttctga ttggcagaaa ttaatcagct 4440

cccaatggga gcccacggaa ctaagtaggg tcccaagaaa aaaaacggga gctatttcac 4500

agagctgagc ttctgccaaa tttcattcct caaacctttc aggaggggtg gttggcgttt 4560

ctaaaatgtt tatgggattt gagttgcagg tgtccactta actgactagc tttgataaac 4620

aatgtcagat tttaactatg aaaacgacat taccttgtgc atttttatat tgattcctat 4680

ttttttttta agattaaagt ttaaatgttt tccactagtc atttcacttc taacttggta 4740

taggaagctt agctctctac atacctatca tgtgccctgt atcacagaag attcaggaaa 4800

aatgcacttg ggaatcaaag aaaatggaac ttctttttga aaagacaagc aaccatgtta 4860

actgtattga cacatcctca ataaaacctg ttgtataaaa aaaaaaaa 4908

<210> 34
<211> 251
<212> DNA
<213> Homo sapien

<400> 34
actgcaaatg tccctatgac ttctttgctt tctcttatac caaacatgca ggtatttaat 60

tgtttaatga gggttgagtg gagttatgtg tcgcttttat tcggattgac gaaaatcaac 120

cataattttc aagggatctt catgggttgt gactggaagc tgaccttagt cttgcgtctc 180

atcctttatg atgttgagaa atcatctaat ttctcagaac tttttcttat ctctaacaca 240

gttattacca t 251

<210> 35
<211> 1331
<212> DNA
<213> Homo sapien

<400> 35
aaaaaaagaa agtaatttta aactcactgg cttgaaatgt gtgctttctg tacaatgaag 60

ttattgcttt ccatatatcc ttgaatcttc agattaacga aatgaacaaa ttttcggtta 120

tagatcagct ctcaaacact aaagtcctta atggcaaggt cttttctgat agcttcatgg 180

atagtattga tgatcagatt tcttctgtgt tattgtctta aaaataagca tttgaacctt 240

aatttaaatt cttttctttt ccatttagag atatgttttt ttctttacct tcataccttt 300

ctatttcttg ctaatttcta tcactaattc cttataattg tccctgctcc ccttcttgat 360

ctcttcaggg ggaatactag gcagttttgt atcttctgat ctcgtaccct gagacttcat 420

ctgaatgtgc tctgccgcct tcttatctga actagatgaa ttggccataa ttatgaatag 480

gaatattaat gaaccagagg acatactagt cacatgttat tatacactaa aaaataggaa 540

gtcatcttga aaggcagtta atgtactgca aatgtcccta tgacttcttt gctttctctt 600

ataccaaaca tgcaggtatt taatttgttt aatgagggtt gagtggagtt atgtgtcgct 660

tttattcgga ttgacgaaaa tcaaccataa ttttcaaggg atcttcatgg gttgtgactg 720

gaagctgacc ttagtcttgc gtctcatcct ttatgatgtt gagaaatcat ctaatttctc 780

agaacttttt cttatctcta acacagttat taccataata atattgtctc catttatcat 840

acaggatcat tatgaaagta aaatgaagta gtatatatga aaatgctttt taaacacaaa 900

agctttatac aaaatattgt tgaatttaaa taaggtaaat ctttttttagt ttatatattt 960

gcagactata cttgttggtt aaattgggca atttaacgtt catagggaat ttggctccta 1020

ggtcctcctt tcgaagagca aaccggacgt accctatttt ttgctaggtg aactattttc 1080

gggcattcgc aacttaattc cctcggtttg gggtgcacat tactctaaat cgctggggct 1140

gatcttacct ggactgttta aggtcggcca gatcccttgt tgagtgccaa ttgcgataac 1200

aatagagccc cgacaaaatg agaacttctt tctgcataac gggggcacag gggcgcaaga 1260

gtgattgcgc caaaagagtc tagccagttt ccctcgcaaa gaaaattatc tcaccctcat 1320

tgactactcg a 1331

<210> 36
<211> 224
<212> DNA
<213> Homo sapien

<400> 36
ccgggcaggt accattgttc tcttctgatg gtctgtttac taaaaaataa aaacttcaca 60

aacgtgtaaa aaatagattt gccatttaaa atgtgctttt caagtttgac tttttaggat 120

acaattaatt cactaaatac agaacttaac taaggacaaa aatttaaaga tcagcattct 180

ttcccttccc atcacgctca acttaacatg aagaactgta aaca 224

<210> 37
<211> 1547
<212> DNA
<213> Homo sapien

<400> 37
ttttttttttt ttcaagaaaa aaaaatcact ttaattgagg aacactttca gtttgtgaca 60

aaattatgct gtgaatcagg tgttgcaaat tatggcccac tgcctgcttt tgtgtaagtt 120

ttattggaac acagctacat tcagtccatg gctgctttta gaatacaaca gtagacttta 180

acatttggaa cagggaacag aaaccagagc catacagcta ataaacttga aaatatttac 240

aagttgatgc tttacaaaat ccatctgctg acccctgctc tgtaccattg ttctcttctg 300

atggtctgtt tactaaaaaa taaaaacttc acaaacatgt aaaaaataga tttgccattt 360

aaaatgtgct tttcaagttt gacttttttag gatgcaatta attcactaaa tacagaactt 420

aactaaggac aaaaatttaa agatcagcat tctttccctt cccatcacgc tcaacttaac 480

atgaagaact gtaaacatcc taagcttaca acaaacctat ctagttagac ttcagttaac 540

cacttacaca tccccctccc ccatgaacta tttggaaaaa gctgcaggcg taatattgga 600

tccctaaata ctttattctc cttataccat tatcagaccc aagtatcatc taatagtcca 660

taatcaaact gcctaaagca gtttctacac tgtcttttta actatttcaa actatcaagg 720

tccgcatttt cttccttaga acttttagtc tttttcttcc ccaaaatatt tgagtccatg 780

ccagttgcct ttagttgtac ccaaataatg gtttgtctgt ttactaaaag tagtactctt 840

aaatttaaat ttagtgttat ttttgttgtc atcgttcctt cttcctcatg tggttgtgca 900

ggcagagctt gagcatccag atttcaaaat taaaaattta aagataatct agtttaatat 960

atagtagttg aatcacctta agtctagact gctgtatgag cacccattat ctttcactat 1020

attccatcat ccccctcccc catgaactat ttggaaaaag ctgcaggcgt aatattggat 1080

ccctaaatac tttattctcc ttataccatt atcagaccca agtatcatct aatagtccat 1140

aatcaaactg cctaaacagt ttctacactg tcttttaac tatttcaaac tatcaaggtt 1200

cgcattttct tccttagaac ttttagtctt tttcttcccc aaaatatttg agtccatgcc 1260

agttgccttt agttgtaccc aaataatggt ttgtctattt cctaaaagta gtactcttaa 1320

atttaaattt agtgttattt ttgttgtcat tgttccttct tcctcatgtg gttgtgcagg 1380

cagagcttga gcatccagat ttcaaaatta aaaaataaaa gataatctag tttaatatat 1440

agtagttgaa tcaccttaag tctagactgc tgtatgagca cccattatct ttcactatat 1500

tccatcatcc cccaacatat ccacagtaga tgaagggcag tttgctc 1547

<210> 38
<211> 710
<212> DNA
<213> Homo sapien

<400> 38
gagatcacca ctatagggca atgttcctct agatgctgct cgagcggcgc agtgtgatgg 60

atcgtggtcg cggcgaggta cttatgtttt taaaaatatt cagtcatttc ctactataat 120

cctcatgtat ccatgtaact gactcaaaaa tacttcagcc acagaaagct aaaactgagc 180

aaatctcatt cttcttttcc atccccctttg catgtggctg gcatttagta atgattaata 240

atatggccag ctgaataaca gaggtttgag acacaattct ttctcaaagg agtcagctaa 300

gctgggtcta cttatggaca aacatctaaa tgtgtggaag tatctgatat ttgacaatgg 360

taaatttcca cttagctagc tagcattgtc agacttcaat ctcctcatgg ctctggccgt 420

cctgttttaa gcatgataat tgttggccac atctcacata gttctcattg agtgagtcca 480

taaataaaca gggtttttt ttttttaaa gagcagccaa gcacaaagtg gtgaccttgt 540

tgacttttta tgcgactttg tcatatgttc ctaaccccca ataaaagcaa tgtggcatca 600

actataaaaa aaaaaaacaa aaaaaaaaaa ggttgggggt aaccggggcc aaaagcggtc 660

cccggggttg aattgttttt ccgcccaaat tcccaccatt ggaaaaaaaa 710

<210> 39
<211> 2399
<212> DNA
<213> Homo sapien

<400> 39
tatggatatg cttattaatg cacttgtttc aaaatcccaa attgcacaaa tgtgttaata 60

ttttaagaaa caaaatgaat cctacaagga gaatgatttt tagccacaca tagggttgga 120

tcttgagagt gacctacaga ataaaagtac ttttaaaata aagtagtcag aggctattca 180

aagggtaaaa taatcatagt accacattgg tccacttgac actaaccaat cgatcatttt 240

tttttaatca agaaagctag attctatcag ataaaatcac tgcttctaaa gagtttaaat 300

ctagttagaa aaagttatag aaatgtttgc aaagataagt aacagataga gtcagtagag 360

gataagatca aaaacaaaac caagcaaaag atgagttcag gggagtttgc catcaagttg 420

gcaaaactga cttacttagg gaagaaagtt ataaaacagg aaaatatgag atgaaccttg 480

agtgatgtgg aagatttaga taaatggaaa ggaaggagaa aatggagttc tttaggtggt 540

tgtaattgga ggaggaaatg aatacacaca tcttgttgac ttaaacccag acattcagca 600

gctctctata catatctgga aaagactgca cagtcacctc ctgtctctca ccccaggtat 660

tacttagaat tattatcata tttcccttcc tttaaagtaa gtaagggtga ttggtgacaa 720

tatggagaac tatgattttt ccattaacct aataataatt ggtatttatt gagttctgtt 780

aagcatttta catattaact cacttaagcc tttcaacagc cttgcaaaat aggtattatt 840

atccccattt tacaggcaag aaaactgagg tttaagtaac ttgccgaagt gccatataca 900

gggctcacat tcagtattgc agttgcaaag ctcatgatct atagtgccaa gttgcaatat 960

tgtagtcaat gtcacaatta ttacccctttt ttatattcct tgatattttt ccatggcaaa 1020

caattagcta tttcatttaa taatcaccta aaacttttca gtcttctgat taaaattacg 1080

ctggagtgat agaatgtatt ttcatgatag aaattgggaa aaaaaatggg gaatgaagtt 1140

tatcagcatt tcagacttgt ttttttttt ttttttttg caagactttg atgagattgt 1200

tcacttttgt ctatgtaaaa tcccaaatcc ttgagaataa aaaaggggga ggtttaagtc 1260

acttgttgca atgccctttt taatagaggc aataaatcta aaggccataa atttagagtg 1320

acttacagaa gatcgaactt tggagtgtgg cagagtaagg gatggaaacc gggccctcca 1380

gttcactatc agtagctttt gcactggtct gcccttccta aattaagtat gcacttcaat 1440

ttgatgagtg gaaacagtct atctgggcag taaccaggga gctttgtgcc tagtagattg 1500

cttctgttct gcacttcttt ggtttcccac ctcaatgtaa aaaatagcta gcaatgaagt 1560

ccagaagttg tcaatggttc atccccagaa gaatgcataa tgtccaaagt tgtatgtgta 1620

tgatgtcttc aatggtatta agttatttca aattcttagt tcacctacat aaatcatttc 1680

taacaagcat cttcttaacc aactttatgc acagtgtatg tttgtaagtg cttctgcacg 1740

aatgtttata catgactgtt tccatagtac ttatgttttt aaaaatattc agtcatttcc 1800

tactataatc ctcatgtatc catgtaactg actcaaaaat acttcagcca cagaaagcta 1860

aaactgagca aatctcattc ttcttttcca tccccttttgc atgtggctgg catttagtaa 1920

tgattaataa tatggccagc tgaataacag aggtttgaga cacaattctt tctcaaagga 1980

gtcagctaag ctgggtctac ttatggacaa acatctaaat gtgtggaagt atctgatatt 2040

tgacaatggt aaatttccac ttagctagct agcattgtca gacttcaatc tcctcatggc 2100

tctggccgtc ctgttttaag catgataatt gttggccaca tctcacatag ttctcattga 2160

gtgagttcat aaataaacag ggtttttttt ttttttaaa gagcagccaa gcacaaagtg 2220

tgactttgtt gacattttat gtgactttgt catatgttcc taacccccaa taaaagcaat 2280

gttgcatcaa ctgtgaaaaa aaaaaaaaaa aaaaaaaaag gttgggggta accggggcca 2340

aaagcggtcc ccggggttga attgtttttc cgcccaaatt cccaccattg gaaaaaaaa 2399

<210> 40
<211> 538
<212> DNA
<213> Homo sapien

<400> 40
cgtggtcgcg gcgaggtaca gagtatgtag tgggcatctg ttgaatgaat gcttttccca 60

gtagcagtgt attcatacaa tattaatata attgtcccct gggcttacgg ataaagaatg 120

aaagcatcaa gtgcccagtg agtgagaccc aggtgttctt cctccacccc tagtggtccc 180

ctgggcaggt ctttttttttt tggtaacact caccaggtct gttctgtagt caatcatgtg 240

atggactgtg tcggtgaact gtgcaggaca ctgttctcat agtgttcatt agcgacagag 300

taaacatgtt tgccatgcaa gggttatttg gcatctgcat ttaagtgata atgttgaatc 360

aatgaaaagg tgttgattaa gcagtagttg tagatatgct aagtttttca aattactaat 420

atcaagtgga gattgttttt acttttaagg gtatggcttt ggtgatagca taaataatgg 480

ttttcctttt tggtaatgta acattactgg ctggcaactt tggtattccc atagactg 538

<210> 41
<211> 1643
<212> DNA
<213> Homo sapien

<400> 41
ggcctttgca cattgaagtc ggcactgctt tggtgccttt tttgtttttt ggctcggtgt 60

tttgactgca agtctttttg gatagaattt tatagttaga aagtagctaa cacttgggtt 120

ttataggcac aaaaaacaag tcttatacta gctgtacttt atttttgag ttcttattaa 180

tgaggaacat ccacttttgc attgacagtg atttcaagat tgctttatca gcctttaaag 240

gattcttgac tagtcgtgca catcagaact gccaggtccc cagtggttct gaagcagtaa 300

gctttgggtg ggctctggca tcagcacttt cactaagctt cacagataat tctgatgcat 360

actccaggcc tgaaccactg atcaatttga aacatgcata acaaagcaaa tcattcagag 420

agacaggtcg ttgctccgga gtgatacaga tctggcagta cccagccctt gtgtgtgtgc 480

gttagctcag cacctgccca cactgcgagc ccccgtagga tgtgccttgt ccttccctgt 540

ttcagcactt aacacactac ctggtacaga gtatgtagtg ggcatctgtt gaatgaatgc 600

ttttcccagt agcagtgtat tcatacaata ttaatataat tgtcccctgg cttacagata 660

aaaatgaaag catcaagtgc ccagtgagtg agacccaggt gttcttcctc cacccctagt 720

ggtcccctgg gcaggtcttt tttttttgt aacactcacc agtctgttct gtagtcaatc 780

attgattgac ttgtctgtga acttgcagga actgtttcat agtttcatta gcacagagta 840

aacatgtttg ccatgcaagg ttattttgca tctgcattta agtgataatg ttgaatcaat 900

gaaaagtgtt gattaagcag tagttgtaga tatgctaagt ttttcaaatt actaatatca 960

agtggagatt gtttttactt ttaagggtat tgcttttgtg atagcataaa taatggtttt 1020

ccttttttgt aatgtaaatt aattgctggc aacttttgta ttcccataga ctggggaagc 1080

ttaattgcct ttacaagtac ttatgtacaa ctttgtatca aattttctgt aatagtttat 1140

gctttagtac tatatatgta ctaataattt tatctgactt ctgtttatat catttgtaca 1200

attacatggt tgtaaaactt ttcctcaata tccttctatt tttatatatc tttctttctt 1260

tctattcctt tctaatcttt attatattat tttaatctct ttcatttttt tctactctct 1320

tctcttctat ctttctaatt cacgatttct actctattat atttttttcta ttactccata 1380

tttatgtcta ttatcttatt ctaattatac ttttttctct tttacttttc ttattatctc 1440

tccttctaac tttatctctc tttctttatt tgatcttttc ttttattttc tatattattc 1500

ttttttttt ttactcttct cttttatttg tcttatttct ctcaattatt catatttatt 1560

ctctctctta ctttctacat attcttactc ttatttttta taccttcttc ttatttacct 1620

tcctatcctt tcttgtttct cct 1643

<210> 42
<211> 711
<212> DNA
<213> Homo sapien

<400> 42
cgtggtcgcg ggccgaggta ctacgcataa tgttaatagc tgagatgtta aagaatttga 60

agtctaaaat ataaaagatg aatataccca tattaatcct atgttaagat gctctggaaa 120

taaaggcctt attcccttac acatgcgatt tttgtaagat aatatataca cagtatattt 180

taaatgtttg tgtgggtggt ctgtgtagtt actccccata caacaaagct gacaaaattt 240

ttaatttaca caatgtattc tgcattttca aatgtttatg ttgtgtatat agcaaagaaa 300

ttatcttact gatatgcgtt gaccaaatcc catggagaaa agacatctca tttgaggttc 360

cccttcctct catgtgtttg attttttgga aggtgataca gtatgtgggt aaccatgcaa 420

atgtttatga ataactttac tgaagtgatt ccatccgtat tctgttctaa tacttggaga 480

atgaccttca tatttatata ttttatttct ttgtttcaac tatccagtga taattcagga 540

aatgtttcct ttttttttttt ttttacaaaa acctttttact gtgtcacatg ttgtataatg 600

taaggtgacc gtgttcataa agtctctttt agaaaaaaaa aaaaaaaaaa gggggggggta 660

ccctgggcaa agggcccggg ggaatggttc cgccaattca ctgaaaaaaa a 711

<210> 43
<211> 5520
<212> DNA
<213> Homo sapien

<400> 43
aaataaaagt aaaaagattt caaaataatt cagacataaa aggagtgaca ttctgataca 60

tggatggagc tggagaatat tatgcttagt gaaataagcc agatacaacc ttttgtacaa 120

aaatacaaaa ttgtatgatc tcatttatat gaggtagtta gaagaggcaa ctctatggag 180

acagaaagta gaatagaggt taccagggct gtgaggggag aggtgaatgg ggagtttaat 240

gaatacagag tttctgtttg gaatggtgaa aaaattctgg agatggataa tagtgatggt 300

tgaacaatat tttgaatata tttaatgcca cagaattgta cacttaaaaa tggttaaaat 360

ggtaaatttt acacgatatg tatctgtatc tatatatatc tctctctata tctatatatc 420

ttaccagaat acaaaattta ataacacact ccgaaaacct ttacagatga ggaaactgaa 480

gaaaactgtc tacaggggag gagttaagaa tttgcccagg attattcagc tgggaatttg 540

cattcgggat ccaaacttag ttctgtttca ctacatatta tctactccat attatctgtt 600

ctgtgttatc tgctggcttt ctgggtgatt aaagatatgt cagctccgag aagaatgagt 660

ttatttgaat cattcagaaa gttacattta aaagtaggta attgtagttt gatggaaggt 720

acagtgtgaa accctagaca gactaaaggt taactttgag gatttctttc tcagccagag 780

tggtaatagt atgcatttga gaggggagga gagtagagtt ctaaggatgt ggtctttgga 840

gacagtttct tgggttccag tccctgagct accaatttgt gtctggggtg ttatcctctt 900

gatgtcttag catccctatc tgtaaattgg tgaggataat gataacatct gataaggtgg 960

ttgtgaggat taaaggaatt gatacatgtg aaatccttag aactgtacct ggcaaaaagt 1020

gtttgataaa tgattttcag ttattgtgcc gatattattt tagagttgat gtactttctc 1080

attaatggaa ccaaacactt ctcaagttaa aattacgtgc ttaggactgg taagttacaa 1140

aaatggtacc acacgtttta tctatttcaa tttagaaatg tctgttgatt aaatgtgttc 1200

gctttaaact actgaaacaa tgtagacatt tataaaatga aagcgtattg atccctgtta 1260

tctcattcgc tacctttaac ggtttggtgt atattcttcc ccaaattttc aaatatattc 1320

atatatgaat atgtatttttt acatacattt tataaaaatg ggaccaagtt atttggttct 1380

aacatggctt ttttttaagg tcaatacaaa gatctgtttt attaaaaaat aattgatatt 1440

cctttagggc tcactatatg cttggtactc ttctaagtca ttattttata tagatactat 1500

aatatcgaga gatggagaga ttaagtaaca actagttagt ggtaaaggaa ggattttaat 1560

ttgggtacgt tagcttcaaa gtcctgatct cccagccagg gatcattttt ggtaaggcct 1620

gtgagctgga aacgttaaca cttttaaaag agttgtaaaa caataccacc ccacttccct 1680

gaagaacata taagggagac tagataccgc ctgccaagcc taaaatactt accatgtggc 1740

cctttacaga gaaagtttgc tgcccttgc tctaagccat ccagctgtac ctctttggtg 1800

taaggggggt gcatagtatt ccagtttatg aatgtgcatt acgcagcaaa ccaatctgtt 1860

gtgattgaca ttgttttctc tcctgaaaag aagtgaacat ccttatgtat ctttgaacat 1920

ttgtgtgaca attttctata gagttggctc tttcaagatt ttgaacattt ctagttttaa 1980

taggtgttgt caagttatat taatttttag ttaaaacaac aactgtattg aagtataatt 2040

tacatacaat aaaaagcaca catttgaagg gtatgatttg aggagttttg acaaatgtat 2100

gcacctgcac cgctgcctgg atcaagatct ataatggttg ccatcatctc agagtccttt 2160

catcctcttt tacagtcatt ctctcaactt ttttttttt tccctccaag atggagtctt 2220

gctctgtcac ccaggctgga gtgcaatggc atgatctcgg ctcaccgcaa cctctgcctc 2280

ctgggttcaa gcaattctcc tgcctcagtc tcccgagtag ctgggattac aggcgtctgc 2340

caccacaccc agctaatttt tgtagtttta ggcgagatct cagctcactg caaccttgac 2400

ctcctgggct caatcaaacc tctcacctca gcctcccaag tagctaggac cacaggcatg 2460

taccaccatg cccagctaac atttattatt aatatttttt tgtagagatg gggttttcct 2520

gtgtcgccca ggatggtttc caactcctgg gctcaaatga ttctgccttg gcctcccaaa 2580

gtgttgggat tacaggcatg agccgcggca cctgacttgt agtaaactct ctgaattaat 2640

attccattgt aggcatgtgc tacagttttt aaattcattt acccatggat ggacacatag 2700

gactgttgtc agctgttgat aaagctgcta tcaccatttg tatgtctttc ctggacatgt 2760

tttagtggta aatattgatt ttactttgta agaaaccgtt aaactctttt ccaaaatagt 2820

tgtaccattt taaattgaaa gttacagttg taactgtgca ggagttacag tttcttcaca 2880

ttttcattga cacttcgtgt tgccagtctt ttaaattttg gccatcaaat gagtattaag 2940

tatctcattg tgggtttgtg tttctcagat gatcaatgat gttggaacat cttttcatat 3000

gcttattggc catttgtgta ctttttttgg ttcaagcctt ttgtcccttt aaaaaattgg 3060

attgtttgtc tggttgagtg gtaagaggtc tttatatgtt ctgggtacat agtcacatta 3120

tctgtcagat tgtgttgcca atattttatt gttcattttt gtttgatttt gtgtatttt 3180

aatactataa agatcaagtt aaaactttaa tatgggaagc ataatcagat aaattatgtg 3240

aaacaaattg tccttaattc acgagtcatt taattagtgt aacaaaatgt tatgcatttg 3300

cagaaacttg taaactaaaa ggatattatt catatgctgt taggtgtatg gatgataact 3360

tttattaatt aaactagttt tgaaaattat tgtatttagt aattctcttc attttgcata 3420

attcaaacct tttcatttat tagtgagtta agccttaaat tttttcttca aaggataaat 3480

gagaatatta aaagtaaaaa gtgaccttga tcttagaatg gggtatgtag aaatgatgat 3540

tgccaaactt agtttcccta ctttgacaat caagtaaaat ttttttttt tttttttgag 3600

acggagtctt gctctgtccc ccaggctgga gtgcggtggc gcgatctcgg ctcactgcaa 3660

gctctgcctc ctgggttcac gctgttctcc tgcctaagcc tcccgtaaat ttttttatta 3720

tagaaatgga tggcttttca gattatatat acttggtttc tatacactat tttatttttg 3780

taaagtagca gttcttttgc tcaacacctg aaatgccccc acaataaatt tttagttttt 3840

cttcaatatt caagtaatac ataacttttc cttttcctgt ttaacaaaga aaaaaaatat 3900

ataaagcaag ctgttggacc tccattgggt gttgtttacc accactgtag gtgatcgtgg 3960

cattgtccac ctcagtcttc tcatggctgt ggattcaagt tatgaaattc ctgaaggtag 4020

cattccaggt agtctgtaga acagcccaaa ctctctgaat tagtattatc tctgataggt 4080

gtttttttta ttctttgctt ttttatttga gacggggttt tgctctgtca cccagcctgg 4140

atttcagtgg cacaatcttg gcttactgca acctccacct cctgggctga aacaatcctc 4200

ccacatcagt ctcctgagta gctgggacca caggcacatg ccaccatgcc cagctaattt 4260

tttatatttt tgttagagac agagtttcac tatgttgccc aggttggtct caagattccc 4320

gagctcaagc gatgttccca ccttggcctc ccaaagtgct aggaccacag gcatgagcca 4380

ctgtgcccag cctagtttct tttctgtatg ctttttttac aaaactgtga gccacagagg 4440

ttgaccactt agccaatttg ttgctagaag ggagaaaaaa atctccaact agcctccaga 4500

caaaacatac tcaaattcaa acagcagtta gttttaatta acatacagaa gtaattttag 4560

actttcagat ttctatgctg actagaacac tttgcaggct gaagctgaca ttattaccaa 4620

atacttcatt taagtacata ctctgaagtg tcaggcttcc agtatatata gcaacgctct 4680

gagagacaaa ctgggctcat atgacggggt tgcattttat tttcttaaca ggtctttaaa 4740

ttgggcagtt ctgaaattct gtttggtcag ttctagatgg tacgtcatgt gaatgcaacc 4800

aagcactgta gttgaaattg tgttatgcca ctactcatat gttgtcttag gtactacgca 4860

taatgttaat agctgagatg ttaaagaatt tgaagtctaa aatataaaag atgaatatac 4920

ccatattaat cctatgttaa gatgctctgg aaataaaggc cttattccct tacacatgcg 4980

atttttgtaa gataatatat acacagtata ttttaaatgt ttgtgtgggt ggtctgtgta 5040

gttactcccc atacaacaaa gctgacaaaa tttttaattt acacaatgta ttctgcattt 5100

tcaaatgttt atgttgtgta tatagcaaag aaattatctt actgatatgc gttgaccaaa 5160

tcccatggag aaaagacatc tcatttgagg ttccccttcc tctcatgtgt ttgatttttt 5220

ggaaggtgat acagtatgtg ggtaaccatg caaatgttta tgaataactt tactgaagtg 5280

attccatccg tattctgttc taatacttgg agaatgacct tcatatttat atattttatt 5340

tctttgtttc aactatccag tgataattca ggaaatgttt cctttttttt ttttttttac 5400

aaaaactttt tatttgtaaa atgtttgtaa taatgtaaag gtgaacatgt tcaataaaaa 5460

tcatatatta aaagtttaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaggcggc 5520

<210> 44
<211> 369
<212> DNA
<213> Homo sapien

<400> 44
atgatagatc atataggcga atgggcctct agatcatgct cgagcggcgc agtgtgatgg 60

atgcgtggcg cggcgaggtg gttgattgag gttaaatcat caaccactag ccccccttcca 120

aaatcagcga gatatttgat gattaagtga ttcattgggt atgttctggc tactgatgtt 180

actgaaatct gcaatcgtgt atgtttttta atttgttgct tttgtatttg taattttatg 240

acatttcgaa gtttctgtgt cttaactctt tttaattaat tttctgcacg ttgctttttt 300

ctctttgttt ttaattccat acagagtatt caattcttga aacacattaa aataatttgc 360

ttgctaggg 369

<210> 45
<211> 1019
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (21)..(21)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (284)..(383)
<223> a, c, g or t

<400> 45
gcgcttccct gggagtaagt nctcctccag tccctgtcac tggacttgtg ccttagggct 60

tggggacaaa cactcaggga aggccctttg catggatggg acagtgcctg gctgcctgga 120

ggagagctaa gcagttagga gatagtctac tctagaaaac taagaattat tttaaggcaa 180

agaccatgct ctgatcaacc agagaagata ctatcaatag cccaggacta tcacagctga 240

atggaatggg atgggacatt ggtgtctctg tcaactgatg aacnnnnnnn nnnnnnnnnn 300

nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 360

nnnnnnnnnn nnnnnnnnnn nnngaattgt cctttggttg ccttagttac cagagttgaa 420

tgaatgtaca catttcggta gtgggggggc agagcggata acccccttcct tgtctgtttc 480

ctttgagaaa ggacactcca ccttttcaaa ggtacttaaa gccatcttta cagattgctt 540

gtaatgtaag gaaagagtca tgtcctttgg attgattgag gttaaatcat caaccactag 600

ccccctttca aaatcagcga gatatttgat gattaagtga ttcattgggt atgttctggc 660

tactgatgtt actgaaatct gcaatcgtgt atgtttttta atttgttgct tttgtatttg 720

taattttatg acatttcgaa gtttctgtgt cttaactctt tttaattaat tttctgcacg 780

ttgctttttt tctctttgtt tttaattcca tacagagtat tcaattcttg aaacacatta 840

aaataatttg cttgctaggg tatggtttat tttataatta cattcctagt cttgtgtggt 900

tattgtaatg atgtctggtc ctaatttctc tgcccgtatg aaaaagaacc ccttgcctgt 960

tgatcctaaa tataatttgg aaattaaaaa aacacacaca caaacaccaa aacaaaaag 1019

<210> 46
<211> 589
<212> DNA
<213> Homo sapien

<400> 46
tggtcgcggc cgaggtgtgg cagtgtgtct tcctgctctc ctcctgccct cgaaggagga 60

ctgggaagat ttccacgctg agattcccag gcgcaaactg cagctgatgc gttcctcgag 120

gttctctttg agatggaaac gagccggctg ctcgtgttca tttctgtttt gcttttctac 180

tgttgaatga ataccaccac agtgaaggga ttattggaat gttttcgaaa cacaaaataa 240

ccatttttgta acttctgctg tatagttttc ttttcctgtg gatggagtgt gtaactacag 300

cacacattta aatgaaatct ctgttaatcg cctctgcact atcttagcaa atattttaaa 360

cctaaagcta aatgttgaaa taaaggtgta gagcattact gagatgcaaa tggagctctc 420

tctggctcct aattaatgac ctgcaaaaaa aagatcaaaa aaaaaaaagt ttggggttat 480

ctcactggct catacgtatg ttccctgttt gaatttgttt tccggttcaa atttccacac 540

aatttcgcac aagtgggcag aaaacgagaa cgggagaaag aggaaagga 589

<210> 47
<211> 675
<212> DNA
<213> Homo sapien

<400> 47
gtcaacgtct attttggggg gagctgggaa tatttggagt tctacatgcg acctggagga 60

atttatcctg gggccggggt gacatctggg gtcccctagt gagtggcagt gtgtcttcct 120

gctctcctcc tgccctcgaa ggaggactgg gaagatttcc acgctgagat tcccaggcgc 180

aaactgcagc tgatgcgttc ctcgaggttc tctttgagat ggaaacgagc cggctgctcg 240

tgttcatttc tgttttgctt ttctactgtt gaatgaatac caccacagtg aagggattat 300

tggaatgttt tcgaaacaca aaataaccat tttgtaactt ctgctgtata gttttctttt 360

cctgtggatg gagtgtgtaa ctacagcaca catttaaatg aaatctctgt taatcgcctc 420

tgcactatct tagcaaatat tttaaaccta aagctaaatg ttgaaataaa ggtgtagagc 480

attactgaga tgcaaatgga gctctctctg gctcctaatt aatgacctgc aaaaaaaaga 540

tcaaaaaaaa aaaagtttgg ggttatctca ctggctcata cgtatgttcc ctgtttgaat 600

ttgttttccg gttcaaattt ccacacaatt tcgcacaagt gggcagaaaa cgagaacggg 660

agaaagagga aagga 675

<210> 48
<211> 420
<212> DNA
<213> Homo sapien

<400> 48
actggtggta ggttacatta gtggatcaca cacagtgtac tacttggccc tgtaaaatgg 60

tgcctgtgga ctagggtgag tttggataag tatgtatgta tgtatgagtt atagcaaaat 120

gaagtagatt gaatcaagtc catgcaaaag cagtaaaaca gttattaatt gttaattttt 180

taaaaattaa aacgttaata aaacagtttg taatgttttg ctagtgtctt ttataaaatg 240

atgtaagtta cagtggaagt cttcacagga cttgtgtctt tcctggaact attgaaatgt 300

aatttaggat gatttgatct tccatctcaa gttgtcaaca tggctgtgtc attctggctt 360

acatatgttt tatttaacaa aattctagtc aagggataag gccttaatga agacaagctt 420

<210> 49
<211> 846
<212> DNA
<213> Homo sapien

<400> 49
cgatgttgcc tctagatgct gtcgagcggc gcagtgtgat ggatcggccg ccgggcaggt 60

acaacaacca cttctcagta gaaagttaag aataacattt aaaaacatat tcatgtttta 120

gagaatgaat gtgccatcgt tgtatattaa ataaaaataa aagattaacc agctataaga 180

acactacaat tacaactaga gtggcagtgt tttttaacta ataaaagtat acatgtttat 240

aagtgcagta tacctgaaat cttgatgttt gtcaatactt atggttgctt caaagataaa 300

tttatgtgat tatttttgaa agatgtgtat taatttaaat aatacccaga aaaattataa 360

cttaaaaatt gcagttttca atatgagaat catttatgtg tgtaaatact caactaagaa 420

aaatcaaaag tgtggtataa tattacaaga aaaaatattc aaaatggaaa gtccatttat 480

gaatgtatta atattaaaat ccaaagttat gtttttttat aatgtctaca ttataatgtt 540

tacaaaggcc ataaaatcat ttcagaaagt tctcatcctc cagatatgac caataaaact 600

tcatttccta gaaaaaagaa gaaatgttat aatttatacc aagatgaagt aagatttgga 660

attacgtata cttacacctt cattttggat ttgattttga atgcatgctt aaaattctga 720

tattcatatg acttatttac catcaaaatt gatttgattt tttgctctca ctttctatat 780

gttcttgtcc aaaaaaaaaa aaaactgggt tatctgcctc ttccttgatt ttctcaccca 840

aaaaat 846

<210> 50
<211> 2347
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (207)..(230)
<223> a, c, g or t

<400> 50
gggcattgga aagctacttg tttatctgat acatccgcta ggtttaagaa atttgtttct 60

caatagctga gattaaatag gaagctctaa ccttagtttt ctgatttctt ttttaagttc 120

agactatatt ctaaacgaat gatcagaggt aggtgatcaa ggaattaaat tgaaagcaga 180

agtagtaatt tcaacaaaac caagcannnn nnnnnnnnnn nnnnnnnnnn gatggatttt 240

ggctctgtcg ccaggctgga ttacagtgag ccaattttcg cggccatttg cacttccagc 300

ctgtgggaga cagggcaagg cttcttgtct caaaaaaaag aaaatataaa tggaaatacc 360

agaatcaccc cttgatagag aattccattt ggcaaagtac aaacaaccac ttctcagtag 420

aaagttaaga ataacattta aaaacatatt catgttttag agaacgaatg tgccatcgtt 480

gtatattaaa taaaaataaa agattaacca gctataagaa cactacaatt acaactagag 540

tggcagtgtt ttttaactaa taaaagtata catgtttata agtgcagcat acctgaaatc 600

ttgatgtttg tcaatactta tggttgcttc aaagataaat ttatgtgatt atttttgaaa 660

gatgtgtatt aatttaaata atacccagaa aaattataac ttaaaaattg cagttttcaa 720

tatgagaatc atttatgtgt gtaaatactc aactaagaaa aatcaaaagt gtggtataat 780

attacaagaa aaaatattca aaatggaaag tccatttatg aatgtattaa tattaaaatc 840

caaagttatg tttttttata atgtctacat tataatgttt acaaaggcca taaaatcatt 900

tcagaaagtt ctcatcctcc agatattgac caataaaact tcatttccta gaaaaaagaa 960

gaaatgttat aatttataca aagatgaagt aagattttgg aattacgtat acttacacct 1020

tcattttgga tttgattttt gaatggatgc ttaaaattct gatattcaac taatgactta 1080

gttttaccat caaaaaattt agattatgat ttttttgcat ctcacttttc ataataaatg 1140

taatatagat acaatttatt ctgttttttg ttgatgttat tattgtttcc actgctattg 1200

aaatcgttct tttaaccatg aatgtgcaga atcagttgat tttccatgtg acagcttctg 1260

ctaggaatct gcagtggaac tggaagtatt tgcaatgaaa gaacttttt ctttaattaa 1320

aatagaattc ccatagaatc aacaattcct cctggtcatc aaacgcgagg tttttcctgt 1380

acttggtaga gcagagtgtg tgtgtgtttg tgcgttgtgt gtgtgttgtt tggtgagaat 1440

gatgagagct gagcattgtg aaaatacagg cgggggtggg gtaacagagc tgggtagggg 1500

tccagggcgc ttagattgcc ttattgtcca ggcttagatg cctcttaccc agagccatca 1560

ggtgtaccct atatagctcc agcctttctg cctactcctg agaagataaa ctgggatcct 1620

gcagtctgga ttcctagaag gagatggaaa gcccagccat atccccagtt tgacttgacc 1680

agtagtaaaa ctagcactac agtttgatcc ctttttacct ccttgaatat cttcaattca 1740

tcaaggatct gtaaagaagg agaggtacaa gatatatgaa acccaaatct caaaacaatg 1800

atttagtgaa tttcccatga actttaaaca gtgattgctt caaaatttcc aagagccata 1860

ctctccctcc agctgctgtg tgtgtgtgtg tgtgtataaa tgcacactat tttaacctaa 1920

aatggtgccc tgtggctgcc attctctaac tcttgcatac ttaaacattt attcttggtc 1980

aaattaaaac ctcatgcatt tccaaagata taaatgcctt gcctggagaa gttagatctt 2040

gcaagtctca ggagggccga gatggtttgt cttatgccta tagctgttta tgtcccacca 2100

gtgggtgttt gtttcattag gtgccgtttc cagccaaatg ttctcattct tcacatcttc 2160

aatgttgagt agcaaacaga agaacatcct tcttagcata atattgcttc actggactga 2220

ttgtgaactc aaaatacctc ttgtttcttg tgaagggttt gccttttgta aacaatataa 2280

gatcactttt ggtcaaccac cctgtctgaa tttatctggg ctgctataat aaagtatcat 2340

aaactgg 2347

<210> 51
<211> 150
<212> DNA
<213> Homo sapien

<400> 51
cgagcggcgc ccgggcaggt acatgttttt aaaaaatgac tacatgtttc acctggtcct 60

attttgctat ttggaccata cttttaagtg aattgatctt acatacatgt taagtctgat 120

ttatctcccc acatttttaa acactaaatg 150

<210> 52
<211> 1748
<212> DNA
<213> Homo sapien

<400> 52
ccctttcgag cggccgcccg ggcaggtaca agtttttatg tgggtgtgta taggtagatg 60

cctatcttac cgatatatgg aatggagtta tagtaacttg tagcgtcttt ctctgctgac 120

tccaactgta tgtcagttct gagtctgttt tggttgatta ttttctttac gtgtcatgct 180

tttctgcttc gttgtatgcc tggcagtctt tgactggatg ctgaatttta cttcatgggt 240

gttaaatatt ttcgtattgt tataaacctt aaactttcag agacgtagtt aagttactta 300

aacagtctga tactttcagg tcttgctttt atgatttgtt aggcagacct ggaccaatgc 360

ttagttgagg gctaattttt ctttttcttt ttgagacgga atctcgctct ccctccaggc 420

tgaagtgcag tggtgtgatc tcagctcact gcaacctctg cctcccgggt tcacacgagt 480

cttctgcctc agcctcctga gtaagctggg actacaggca cgtgccacca cacccagcta 540

atttttgtgt ttttagtaga gacggggttt caccatgttg gccaggatgg tctcgaaccc 600

ctgacctcaa gtgatcagcc cacctcagct tcccaaagtg ctgggattac aggtgtgatc 660

cactgcaccc ggccggcatt atgattttgt gtactcttga aatggttatc tttgtggatg 720

attttttttt ttaagctgaa acttacctca tgaataactt gattaaagta gtaggtgatt 780

aaaatttcaa tagaatcaaa tgagacaaaa attttaaact gactcatttg agtttcaact 840

ttacagtcat tgaccataaa gcacactaaa aatgtaagtt atttttaaat acatctgaaa 900

taaaaatact tactaaaaag gaagaagccg aagatgtata tttagaccag cacacaattt 960

tgatttcaat tagccttatt ctaatattta gcttttagat ctttcataca cattttcacg 1020

tactttgcaa ttgagaccag aaagacttgt aggtctttct gcagaatgag tgggtccttg 1080

caaagtgagt gggaaactta ctcctagatc agaaatgttt gcctctctga gtaaaatgtt 1140

tctttcagat gagccataga gggggcacct tttactcaac ttttctttgt tttgaaactt 1200

tgtttcccat actgttttca gccttttgtt tataattaga aattgtgaga agcttcattt 1260

agtgtttaaa aatgtgggga gataaatcag acttaacatg tatgtaagat caattcactt 1320

aaaagtatgg tccaaatagc aaaaatagga ccaggtgaaa catgtagtca ttttttaaaa 1380

acatgtactt ggtctttttgt gtgtgtctgt tttattccat tagaataaat gtgtccttga 1440

tgtaaatgca aagcatttct tcctgattaa attgtagatg tagactttac aatataattc 1500

aataataaaa agtaattaac ctctaaaaaa aaaagagaaa aaaaacaaaa aaaaacactt 1560

gttggggcgg cgcgggcccg gagaaaagtt tttaaaacac ttctgttggg gcggggcgcc 1620

cgggtgtagg gccccggcac aggggtgcaa ggagaaaccg ggccggcacg gcgctggttc 1680

cccaaaaaaa gccgtggcac ggggctcgaa aaccgagggc cgggcacagg ctctcacggg 1740

ccggcgta 1748

<210> 53
<211> 459
<212> DNA
<213> Homo sapien

<400> 53
gggaaactaa caatgttcag ctgttcctgg acttcagaac cacagaactg agatgataaa 60

tgagtggtgt ttcaagttgc taagttgtgg tcattgctta cagtaatgta aactaataca 120

caagtgtaag tttgttttct taaagaagaa aaaaacgggg aaggaggtaa gtgttaaagg 180

atcaaaactc tgacaaaagg ctggttgcag aacatgacag gttgttgcac tggaaactat 240

ttgtcatgca agtttatgtt aaaataagta gcttttgagg actttcattt ttggtcttgt 300

aaacatgcca tttaatattg tccaactgat aatacttttt gcaacagaaa ctgttaaaac 360

ctttaaagca atattactgt agagaagaag tatgtgtatg aaacctgtga ggatactaaa 420

agatctacta gttctcagca taataatgac gtttgacaa 459

<210> 54
<211> 217
<212> DNA
<213> Homo sapien

<400> 54
gagacagaca tatgggcgaa tgggccctag atgctgctcg agcggcgcag tgtgatggat 60

aaaattaaaa taaaaacaac tgaaggatat atgccaagat aaaccaaaat taatacagtg 120

atcacagcac agttcttaaa caaaagtggc atacaatcta aaaatatctc tttttctaga 180

aatactatta tgtaatctag ttcaattatg gaagctt 217

<210> 55
<211> 2054
<212> DNA
<213> Homo sapien

<400> 55
ttttttttttt gacaaacagg tgtatgcatt tattcctttt taggaacaat atctaaaaaa 60

agaaccgccc tctgccctcc cccaaaaaag acaaagattc acacagacac atcgggatat 120

atgtacaacg taataaaccc catcctaaag aagcaactgg gataaccccc aggggataca 180

gaatcagaat tgtaaaaatc atagtgaagt ttgcttgctg taaagcctga gaatttttt 240

tcagttgggt cttcttgcaa ggttgggata cctgcaaaga tttgaaaaac ctaatttttt 300

ttttttttt tttttgctac agtctttaga ctaagcatgc aagacatacg actaagtgca 360

actgagtgaa atgttttttt tttaaatttt aatcattccc taaaggtttg aactgaggta 420

tgcgtactaa cagtttctca tgctgttatc tttactcatg tctagctaca catgctgaga 480

atgaactaat ctaccagatt tttatcctct tttgaatacc aaactaacca gcaaccactc 540

agtttagaag cacagggccc ccttcccatg accctgtctg gctactgcct gcacatcatg 600

aagctgcctg gaaaagtttt ttttttttt ttttttttt ttttttttt ttttttaaag 660

tcttgcgtga ccacagactg ccctttatac agaaagcaga gtgaagcttc aaaagtaact 720

gccagagaag tttttgtacc aagcttatga gtggatggga gtgttacttt tctttaaatg 780

aaaaatgctg accaaagcct aatcggaaaa aaaggaaaaa ttaaaaataa aaacaaactg 840

aaggatatat gccaagataa accaaaatta atacagtgat cacagcacag ttcttaaaca 900

aaagtggcat acaatctaaa aatatctctt tttctagaaa tactattatg taatctagtt 960

caattatgga agcttttctg tcctgactct aaactgtctc ctttattgga tactctaatt 1020

gcagtggcat acattcattt ttttttgag atgggactcc cttccttctg tagctccttt 1080

aatattgtgt cctattttta tctgcagtag ccccataaaa tctctttaag agaatgagtt 1140

ttggtctctg tagaggtaca caaaaagaaa aaggaaaaat aactactaga aaaaagtaac 1200

aactttggtt ccattatcta cttggtcttc taaatttacg atgaaggagc agttctcttt 1260

ctcaggttgc aatagcctat cgcttgtcat ttgcctctaa attcttttgc ctcctttgat 1320

caacaataag aggatatttg gcttcatcag ataaagcata aaacagagaa cataatttac 1380

ctttgtgtaa tatctttggt aattttagaa aaaaggtaca aagaaagaat ataaattaag 1440

cttcgaaagg ctctcgaact aaaaaaaact acagtcctat ataaataaat gacaggaaag 1500

tgggtgcaga gctgaagtgt ggaggggttc taaggactga ggttgtactg acctgtaacc 1560

atcacatttc tgcataccat gtttgggacc cccccaaagc ccagggccta catgatatct 1620

tctatgagtt tttgtgatac tgggttggtg atataatatt gcataacaaa ctgcagtacc 1680

aaatttgcat atttgaaatt aacactttag catttgctga actcagccct cgttaactcc 1740

cttaacaagt tcaatctgaa atcgaatttg cattcaaaca gtttaatgcc accaagtagg 1800

tctgaactaa tgtataaact cagcgccgcc gccgccaccc ctactttcag ggcagctgct 1860

cggggaagcc ggtttttttt tttggcccat tttgccaaac caaaacccta cccacacccc 1920

gttatcgcca gagcacccca ggcccctggc aacttggttc cacaagggag agccttccaa 1980

ggccatattg tccagtctaa ttaatatgag ctttttttt tttttcagtg ctgtcgctac 2040

cttaggaccg ttat 2054

<210> 56
<211> 221
<212> DNA
<213> Homo sapien

<400> 56
aaagaaaaag aataattgag ataggtattt actttcgtgc acagtaataa atctagctga 60

gctgctacac cttgctttgc aaagatgttt acataaaata aatcatctct tatcaagtta 120

caatggtaat ttcttgaaat gtagatatga aagctataca cttaatccac tgaaatttcc 180

ttctaatttt ttaatctgta attagaccat caccataagg a 221

<210> 57
<211> 3055
<212> DNA
<213> Homo sapien

<400> 57
tctaattttt ggttaattta tagccacacc ctaaagtgaa aaagtgccaa cacaggccaa 60

ttggaatccc acaatttcca cgagcccaaa aaaaaaaaac atgtatttta gagttcatct 120

ttggcaaaat ctttggttca gggtactagt tgtttaaaag ttgattcata ttcttacctt 180

gtgctgagaa aggttgcatt gctgcccctt atacacatgc tgcagcttga tgttaaagaa 240

tttttattct ttctgaagaa ctaattaatg tttaaagcaa ctgtttaata tgatggcatg 300

tgtgtgtgtg cgtgcgtgtg tatgttctga gtccacttct tttttcctaa ataacactac 360

agggattttg tcatattaga tttaatttat aatttgaaaa atcatctagt gtgtgaccta 420

caggcttaga aatggtatag tcaaagacat tttatccaca tttctaatag tggacttgat 480

taagtagata agatcagcat ctgtttatgg tagtaggaga aatagccaaa gttgaggatt 540

ttatgtatgt tttcctgttt acctggaaaa tagcaattaa ttggattttt tggtaaagat 600

tgccttctgt ataatgtttg gattatataa aattgcaaaa atgataacag cccgctttac 660

tgtactaagc ctgttacttt catgacgtgt gagcagaatg ccttattttg taatcttgtt 720

taacttgttg ctactgggac ttgatttact gtggcactag ttaagtaagt taaaaaaaag 780

ttaaaccctc tcattattaa agaggaaagg cgatggtgat gtctgtagta caatataaac 840

cataattgtg atttacctta agtaggtata actcttatgg gatatacagt atagtttttg 900

tgaatcttta catgatagca ttatcttttt ataatttttt ttcctaagat aaacaaatgc 960

atagttttct tctatgggtg atagaaacag ctttttgaag taatgaaaac ctcaaaagat 1020

catgttgatt cttaattttt gccttttgca taagcctctt tataacatgt atctttaaaa 1080

caattaagtc tttaggaatg tgtaaccaga actatgttag tattgcttat aaaactttag 1140

ttaggttcaa tatatacata tatacatctc tatataggta tatagatttg cattttgtct 1200

tgtaaaattt tatttgaata aattcttcct gtaggtaatg ggaaacaaaa ttaatagttc 1260

atatgtcact catagcattt ctatatttga aagtagccca atataaaact tttgattcta 1320

aaattaaacc agcagcctat tacaagcaca ttctttgatt gagtcattgg ttataaactt 1380

actaaatgca gagaaagcag ccaatttagg aaacttctga gttggtggga cactgttgat 1440

taataatgta ctgtatgaat taagtgatgc tttaactttg attttacatt ttaaagttaa 1500

aatgtgggca ttatgtcagc aaacttaagg gcattatgtc agcaagctaa aacatttttt 1560

ttcctgtgct tttaatgtat ctctttacat gatctgagag aggattcaag ttgatagaaa 1620

tagctgaggg gaaaaggggg aacatcttgg gatgaagctt gtccttatgg tgatggttta 1680

attacagatt aaaaaattag aaggaaattt cagtggatta agtgtatagc tttcatatct 1740

acatttcaag aaattaccat tgtaacttga taagagatga tttattttat gtaaacatct 1800

ttgcaaagca aggtgtagca gctcagctag atttattact gtgcacgaaa gtaaatacct 1860

atctcaatta ttctttttct tttccaatat aaagtttgct gaatgtacaa gaagagttta 1920

tcacttagga tatagaattt ttttaggggt tgggggaggg gatctgttag gaaactgtta 1980

cctataaaca aagattgact ggattcgatc caaaagataa aacttgaagc tattctggaa 2040

ctaacatgga aaaatgaaat ggctattgtt taaaaaaatg atagaaatac attgttgatg 2100

ggatatgagt taagtttatt ttctacaaac tgtaattgat gaggacatgg ataatatctt 2160

catgtttctg agaagtaatc tgtatgtggg gggaggggat aataaatatt tctaaccaaa 2220

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2280

aaaaggggggg ggggcgccaa aaaatatccc cccgggggggc gccccattcg cgcccaccct 2340

ttttttgtga aaaaggggggc ccccatgggg ggtcttatta aaccaggggg gggcgcgcta 2400

aacaggggggg ggggaacaac tacgcctgtg gggcacttgt ggggaagacg aggcaccccc 2460

tacactcggg gggggggccg aaacaatggg ggggcaacca ccactccaga aagttatgta 2520

agacgcgtaa gggggataaa tacacaaact agcggcgtgg agctggtggg tggcagccca 2580

caggcgcgta tatttgcgaa gcagaaaaga agttgggcta cccgagcgta tcgtattgac 2640

gacctttctt tcgcggggct ccgtgagtta ttacgtcgaa ccaaaagtca aaagcgacca 2700

agagacaacg aagcgagcca ggtatgaaca cgagggcacg actgacggca agacgacacg 2760

aagggaaggc aacaaagcaa aggagacaca cccacaagaa gcgagcaaac cgccacacac 2820

ggaagacaag gcccgaaacg acgagcgaaa gagagcgaca aagacagaag aagaatagat 2880

acaaaaacgc ggggccacaa agcagcgcac aaagcaggcg aacaacacac aacaacacgc 2940

acgaccaaca acgacgacag cacaagcaga gatccaagac agacacgaga ccaagagcag 3000

acagccgaga gcactaaggc ccggagacga acacacacgg tgaccgaaca agcac 3055

<210> 58
<211> 831
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (76)..(300)
<223> a, c, g or t

<400> 58
ttttaaaaga cgtgcttgtt tccaagtgct ttttacatac atttatcttt tacagttctc 60

acaaacttgc ccatannnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120

nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180

nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240

nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 300

atgaccgcaa gaggcagtac ttgtggacag ctcagacacg ttgtccatcg gaacagcgtg 360

gaccacagcg agaagacttc cgagtccaga tcagtaccag cgagagagac gaagggcatc 420

gagccaaaca tctcccaaag agggcgagaa cactaccgag atactcacag cagaaggtca 480

gtgagggaat aaaacgcccg gaaaagcaac atatgatgaa gcccactaga cgcgagaaag 540

aggccccaag gataaccgga aagcaacaga gcacgacgtc acggccggcg aggaagagaa 600

acacaataag aacaacagac acacgcacat ggagcgaaag ccagttcacg cgaagaaacg 660

gtgcgaaagg catcagaagc acaacgaagg gatgggcaaa aaaaccacgg cacagaggat 720

gtagtcaaac agattaccca gggaggatat acacaccagc ataagctccc ctcaagtcgc 780

cccacatgtc cgaagccaga ccgcatagcg gacaacctga cgacaacatc c 831

<210> 59
<211> 220
<212> DNA
<213> Homo sapien

<400> 59

aaaatggcca aggtgaatat atagtcattt atttgtgcaa aaatgccaaa gaaatgctga 60

gatgtcttct gtaaaaaaca gtaaattact ggttttacct atccctaacc cttatttgac 120

acaactatct aaaatgttca ctagttaacc aaacatttac tcagcatgtg aatccatgct 180

aagttgagga tcaaaggtgc gaagagaaga tattctttat 220

<210> 60
<211> 2626
<212> DNA
<213> Homo sapien

<400> 60
cttattgtgc ggtagggtgt cttcccccct ccttggtgtt ttccccccgg tgttttcctc 60

tggtgtggac ccgctgttgt tgcccacacg ttgtttcggc tgatctcctc actgttgtgg 120

ggcccgcgcc cggcgtccct acaagcattg ggttcttcta gaagccctct tctttcgcgg 180

gggggctgct atgtgtgggc tccccacagt cagatgtttt gtttttgttg tagcgtgttg 240

ctgtggctgc cgccgcgctc tcgccgtgtt cttctcttgt agaattctgt taaaaactag 300

gaaagtgttc taagttgcaa aagggaagtc tttgatacag ttcatgattc tttttaaata 360

catatgaagt ttaacaaaat atatacatga atgtgttcaa gtagaaaatg tgaaatatac 420

attatagatt tgttgtattg cacttgggca aatcataatt gctcacttca gcatattcaa 480

accgaatcac aacatagtct ttgaaagttg acattataac ttagccttgt actcaaacat 540

tttaagaaat gttttgatgc cttaatcttc accaaaggaa tcaaacccaa atactaactt 600

ggccatatgt ttaaatacca ctaaaggcag ggaggtaaag tgttgtaggg tgcttaaaat 660

atactaagaa gggatttggc aattttccat tcacagtatt tccaatataa aagactcatc 720

ctatttatca aactcacaaa agttgggggа aaatatcact tgggaaaaaa tttcactgaa 780

ttgctatcaa aggaagcaat gaagttactt gacaaactat tgacaggatg tctagttcaa 840

aatagaatct tcattgaggc taactgtagc acagtatgtg atacataaac aaaattcaaa 900

tattaaaatt ctaaataaaa aaattttccc cactagtata aagtagaagt tctatagtgg 960

aaataacaat gaaaacagat gaaaaatcag tgaagaaata gagggaggta ctactaaaat 1020

tttgtgtttg agaggaaaaa gagaaaggta aaaaataatt ctgggaatat ttaaatcagt 1080

aattgaatac atgtagtgat gtctttaaag caccttcaag aaagacctct ttcattttgg 1140

atgacaatac attaggataa atgaaatatg tgaatatggc aattttccat aaaaacaaag 1200

gagactatgg agactgtctg gttcctgatt tggccataca aaatatagaa aattcaagtg 1260

acccaggttc cacagtccca attctgtcaa attccgatcc aacaatttgt aaaatggata 1320

acatctgtat acttccactg tatatgaaaa agaatgagca gctcataggg ctacttaaaa 1380

aaaaaaatgg ccaaggtgaa tatatagtca tttatttgtg caaaaatgcc aaagaaatgc 1440

tgagatgtct tctgtaaaaa acagtaaatt actggtttta cctatcccta acccttattt 1500

ttgacacaac tatctaaaat gttcactagt taaccaaaca tttactcagc atgtgaatcc 1560

atgctaagtt tgaggataaa aggatgcaga agagaaagat attctttatt acaagctttc 1620

caacatcatg atcaaaatta caaataattt tcaaggctgt tgtaagaagt caacattaaa 1680

tgttaagttt aagcatagat tactactatt tatgaaacag atttcttcct tttgaaaggt 1740

gtgtataaaa tgtgatgtaa atcaaatcta cttatccttc tcctgcagtg caaaattact 1800

tgtacttttg gggaagataa ttccctaata aactaaatta aggtctcttg gatagaaatt 1860

cagtttctct cttcatacag ccacaaaggg tactatcttt tcattcagtc ccttaagcag 1920

cttactcttc aatgccaaca aaactttatt ttttaaatag tcttaaaagt gcttaaggga 1980

gttctggttc ctctttttag cctgcacagt ttaagatcaa tggtaaaggt aggaaataat 2040

cataagggca ctggaagaag gaatgagtct aaataatgta taatgactgt tccgccatac 2100

caattttgtc atggtgatta ttcactaatt ttataggaga gtgtattgag atctgctaca 2160

gcttcttgga tctttgaagc actgctgaat tacatacaca aagcagagca gatgtcagca 2220

cctgattaat cagtactcta ctactggcta gattccccag gcaagtcact taaattatct 2280

ccaaacagct tcctcatctg taaaataagg ataaaaattc cttcctcaca gagatgttat 2340

gagaattaga ggagatttga aaatgctccg tcaatcataa aatcatgcaa aattattcct 2400

ttgtagaaat ttgaggatta aatgtaataa catgaaggcc acactaaccg cctggcacat 2460

aaatacttaa taaaagttat tccccattct cactcttctg tgtaatttgc agttaggaaa 2520

tataaatcaa agacaccctt gtcagactca catccatttg gctttaacta gaactgtcct 2580

tccctgctcc ttttcttttt ttttttttt ttggatacat atcttt 2626

<210> 61
<211> 586
<212> DNA
<213> Homo sapien

<400> 61
gcgtggcgcg ccgaggtatc gcactccagc ctgggtgcag agcgaaactc tgtctcaaaa 60

aaagaaagga agtggcatat ttggtaaatt gataaattac cactgtcaaa ttatattggt 120

gagtctatat ctattgttgt ccccagatgt tgcctttgca agaattagtg taaaattgga 180

aaaaatactc aatgttgaaa gctgtcattg ttgagatctt tatgaaatta ttgtgcccat 240

gtccaagttt gaattagaga tacacagcac acaatcattt ctgttaccac ttttggaata 300

tctagcatta gccttgatag ttttgtgtgg tgtgtttgag tatatctgaa ctgttagtta 360

tatttggtta atttattaaa agatgtgtgt taaaccttaa tatttatgca gtgtttaagt 420

attttggaat atatttgaaa taaattatcc agtgtcttag atacaaaaaa cacacccaca 480

cacaacaaca aaaacagcct gggggacccc ggggccaaaa ccggtcccgg ggggaaattt 540

ggtttcccgc ccaaatttcc caacattggc aaaaaaagcg cacccc 586

<210> 62
<211> 856
<212> DNA
<213> Homo sapien

<400> 62
ttttcattaa tgttttattt tttagagaat cactttaagc aattaaataa ccatttatct 60

aaaacactgg ataatttatt tcaaatatat tccaaatact taaacactgc ataaatatta 120

aggtttaaca cacatctttt aataaattaa ccaaatataa ctaacagttc agatatactc 180

aaaacacacc acacaaaact atcaaggcta atgctagata ttccaaaagt ggtaacagaa 240

atgattgtgt gctgtgtatc tctaattcaa acttggacat gggcacaata atttcataaa 300

gatctcaaca atgacagctt tcaacattga gtatttttc caattttaca ctaattcttg 360

caaaggcaac atctggggac aacaatagat atagactcac caatataatt tgacagtggt 420

aatttatcaa tttaccaaat atgccacttc ctttcttttt ttgagacaga gtttcgctct 480

tgcacccagg ctggagtgcg atggtgcgat ctcggctcac cgcaaccccc gcctcccggg 540

ctcaagcgac tctcctgcct cagccccccg agtagatggg actacagacc tgggccacca 600

cacccggcta actttgcact tccagtagag atggggtctc tccatgtggg ccaggccggt 660

ctccaacccc tgacctcaag cgatccgccc gccccggcct cccaaagtgc tgggaccaca 720

gacgtgagcc actggacccg gccgcatttt ttttttttt ttttaattga gactgagcct 780

cactctattg cccaggctgg agaacagtag cacaatctcg gctcactgca acatccctct 840

ctcaggttca accgat 856

<210> 63
<211> 276
<212> DNA
<213> Homo sapien

<400> 63
ttggtctctt gaatttgtat tttgtctttt gtctagcttt cccacaaaaa aacattgttg 60

atttgaggat ataataatgt tttaatcttt ttaaaatata agtggttatt ctctgacttg 120

gtaactatgt tctgaaaaca ctgcatttaa gaatttttaa aaattggttt tctaaaatta 180

aaatgtccaa attaggcata ttgctgagct caaattgatg tgaaatgcca tggttccagt 240

tgaattttaa gcatattttc atttagatat aaaata 276

<210> 64
<211> 8904
<212> DNA
<213> Homo sapien

<400> 64
atggcggcgg cgctggggcc cccagaagtg atcgctcagc tggagaacgc ggctaaagtt 60

ctgatggtga ggacgccgcg cccctcagac cccgggattc gcgggccccc ggtcggccct 120

gccactccag gccttgctgc tcgctgggct ggcgactggc aagggcctgc agggagcctg 180

gaagtggagg aggaggtggc ggtggcgtgg cgcaggattc ttcagcctac tttcctcctg 240

ccgtcgtccc ctccttccag gagctgtccc cttcccctgg ctgcccagca ccccagtcgg 300

gcgtgggaat atagtggtgt agcaaagaga atttcttcac cttacaccct gccccacaga 360

ctgggtcgca gagcaaggcg ccgggaagga gttggggtta tccccgcagg gcttcgggcc 420

tctcatatac tagtccttct gtctggaatg cttttcttcc ctgtcacttc atccttcagt 480

tctctcagta gtcagtttct cagggaagcc ttccttagcc tgcctgaaag tataccctgg 540

gtgatagatt ggattggatt ggattggatc ggatcggatc ggatcggatt ggattatatt 600

gtatttattt ttaagagaca gggcagctgt caaaatggaa gttcagggtc actagaggtt 660

ggcacatgtc tccagggtaa acacatgagt gcttgcattc atctttggat ccctgcgttc 720

gcttctgttt tagcttttga tgattcctta atttcttctg ccacagccat aatggaagca 780

gttgtccgag agtggattct cttggaaaaa ggtagcatcg agtctctgcg aacattcctt 840

ttaacctatg tcttacaaag gcccaacctt caaaagtatg ttcgggaaca gattctacta 900

gcagtagcag taattgtaaa aagaggatca ttagataaat caattgactg caaaagcatt 960

tttcatgaag tcagccagtt gattagtagt ggcaatccca ctgtgcaaac tctggcctgt 1020

tctattctga ctgcgctatt gagtgaattt tcaagttcaa gtaaaactag caacattgga 1080

ttgagcatgg aattccatgg taactgcaaa aagagttttt caggaagaag accttcgtca 1140

gatcttcatg ttaactgttg aagttctgca ggagttcagc aggcgggaaa acctcaatgc 1200

tcagatgtct tcagtatttc agcgttacct tgcactcgcc aatcaagtct tgagctggaa 1260

ctttcttcct ccaaatttgg gcagacatta tatagctatg tttgaatcct cgcaaaatgt 1320

gctgttgaag ccaacagagt cctgcgggag actcttctgg acagcagagt tatggagctt 1380

ttcttcacag tacatcgaaa aatccgagaa gcattcagat atggcaccaa gattctctgc 1440

agtgccttgc ccagttagct tctcttcatg gacccatctt cccagatgaa ggatcacaag 1500

ttgattatct agcacacttc attgagggat tactgaatac tatcaatgga attgaaatag 1560

aagattctga agctgtgggg atctccagca ttatcagcaa cctgataacc gtgttcccac 1620

gaaatgtttt aactgccatt ccaagtgaac ttttctcctc ctttgttaac tgcctcacac 1680

acctcacttg ttcttttggg cgaagtgctg cattggaaga agtgcttgat aaagatgaca 1740

tggtatacat ggaagcatat gataaattgt tggagtcctg gttaactttg gttcaagatg 1800

acaaacattt ccataaaggc ttttttaccc aacatgcagt tcaagttttc aattcctata 1860

ttcagtgcca cctagctgct ccagatggca caagaaattt gactgccaat ggtgtggcct 1920

ctcgtgagga ggaagaaata agtgaacttc aagaggatga tcgagaccag ttttctgatc 1980

aactggccag tgtaggaatg ctaggaagaa ttgctgcaga acactgtata cctcttctga 2040

caagtttatt agaagaaaga gtaacaagac tccatggtca gttacaacga catcagcaac 2100

agttacttgc ttcaccgggt tcaagcactg ttgacaacaa aatgcttgat gatctctatg 2160

aagatattca ctggcttatt ttagttacag gctacctctt agctgatgat actcagggag 2220

agactccgct aatacctcca gaaataatgg aatattccat taagcattca tctgaagttg 2280

acattaatac aacacttcaa attttgggat ctccaggaga aaaggcttct tccatcccag 2340

ggtacaacag aacagattct gtgattaggc tgttgtctgc cattctcaga gtttcagaag 2400

ttgaatctcg agcaataaga gcagatctca ctcatctact aagtccccag atgggcaaag 2460

atattgtttg gtttttaaaa cgctgggcaa agacttatct cctggtggat gaaaaactgt 2520

atgatcagat aagtctgcca ttcagtacag cgttcggagc agatacagag ggttctcagt 2580

ggataattgg ctacctctta caaaaagtca tcagtaacct ctcagtctgg agtagtgagc 2640

aggaccttgc aaatgacact gtgcagctcc ttgtcacttt ggtggaaaga agagaaaggg 2700

caaacttagt aattcaatgt gagaactggt ggaatttagc taagcagttt gcaagccgaa 2760

gcccacctct taatttcttg tcaagtcctg tgcagaggac attgatgaag gctctagtct 2820

taggaggttt tgcacatatg gacacagaaa ccaaacagca gtattggaca gaggttcttc 2880

agccacttca gcagcgattc ttaagagtga taaaccaaga aaacttccag cagatgtgtc 2940

agcaagagga agtcaagcag gaaatcactg ccacactaga ggccctgtgt ggcattgctg 3000

aggctaccca gattgacaac gtagcaatcc tgtttaattt tttaatggac ttccttacca 3060

attgcattgg attgatggaa gtttacaaga ataccccaga gactgtcaat ctcattatag 3120

aagtttttgt tgaagttgca cataaacaga tatgctatct tggagagtcc aaagctatga 3180

acttatatga agcctgcctt actttgttgc aagtgtattc taagaataat ttagggcggc 3240

aaagaataga tgttacagca gaagaagagc aataccaaga cctgcttctc attatggaac 3300

ttcttactaa cctgctgtca aaagaattca tagatttcag tgatacagat gaagtgttta 3360

gaggacatga gccaggtcaa gcagcaaaca gatctgtgtc agcagcggat gttgtgttgt 3420

atggagtaaa cctaattctg cccttgatgt cacaggatct cttgaagttt ccaacccttt 3480

gtaatcagta ctacaaatta atcacattta tctgtgagat ttttcctgaa aaaataccac 3540

agcttcctga ggatctgttt aaaagtctga tgtactccct agaattagga atgacatcaa 3600

tgagttcgga ggtttgccag ctttgcctgg aggccttgac accgttagct gaacagtgtg 3660

caaaagcaca agaaacagac tcaccacttt ttctagcaac acggcacttt cttaagctgg 3720

tttttgatat gctggttttg caaaagcaca acacagagat gaccactgcg gctggcgaag 3780

ctttctacac gttggtgtgt ttgcaccagg ctgaatattc tgaactggtc gaaacattac 3840

tatcaagtca gcaagaccca gttatttacc agagattagc agatgccttc aacaagctca 3900

ctgcaagcag cactcctcct acgctggatc ggaagcagaa gatggccttc ttaaagagtt 3960

tagaagaatt tatggcaaat gttggtggtc tcctttgtgt aaaataaaca acagaacttt 4020

atgcttaatt tagatccttt ctgcaaagtg cactgaattg ctgaaagttg acttgagtct 4080

tgtcctattc ctcagttcat ttggccattt tggattttgg agagcctgaa actttgatat 4140

gtatgtaata cagtgaaaca ggagaggtca acttggcatc agcttctgct gttaagtgtt 4200

agccacaatc tgtcatatat atgtctttta gattctgaat ggtgatttaa aattttcaaa 4260

atgaaattcc atatatgtgc aaacagatat gggcaccacg aaatacatat gcagtgcctt 4320

ttttcctttt aacataggtg gctagccaaa gtttagaatt tttgtcatta aatatgaaat 4380

ggatatatgc taggcagtgt ttctcaaaat ctccacagat cgcctgcatc acttgaggag 4440

ctggtgaaaa ggcagattct taggcccaac tgtagacctt cagagtcaga atgtctggtt 4500

gttgggccca ggagtcttca tgttaataag cttctccctt tcgtcacccc aaaagttttg 4560

aatcaatgaa agagacattg aaaactctta agaggttttg tgctttctag cttttcctcc 4620

ctttgatgat tgggttttat aattcagcag gaaggggaaa catcatcagg ggtttgttgg 4680

ctttttctta gcttgctttc ttgcttgctt gctttcttgc ttttcttgct ttctgtctct 4740

ctctttcttt tctctctctc tctcacatca acccagtgct gcaggttttg tgtaatacaa 4800

gtcactaatc atactctgat gcctgaactt gaggaggaaa atacatgtat atttttgttc 4860

cgtaaaaata accttaggaa ctgtagccat ttcattgcct taattttaag aggaaaatac 4920

aaaaacagct gatttgtttt agtaagaaac cacgtcttga tgcttcagag ttggtttagg 4980

gtgttagctg ctatgaacct gttgcccctt tcgatcgtgt atttatgtag gtttatcagt 5040

gaaatgaaag gcttgtttcc gtctagtcta acttttgag tgtgtttcta tccagccaca 5100

tagcccatat ctactctaaa tggcttgctt aagcaataat tattttaaag gatgtgaatc 5160

actgattcac acagactatt gcacgttggg gcattagggg caataattct tatccagaca 5220

tgggagccag tgaatttaat ttcagagatt aaaaattcac tttagatcct ctagtttgat 5280

ctcttaatca ggatttttat acagctgcca ggctccccta attcagtgtg ccagcttaca 5340

atgtggaaat gaaagctaat ttatacacag caggcatatg aaactccact cattgcagta 5400

ctttcacagc acagtgacag gtagaggact ctggcacagg tgcactcatg aaactctgct 5460

tccaccatgt tcctgacacc tatctattaa accattctgc aaatacggtt tttctacctg 5520

attgcatata gcatatgtgt cattacatgt gatgctgtgc aaaactttgt ataattctgt 5580

gttattaaca gttaacaaaa ctggagcatc tgaattacat ccaacctgtg catgtgatgt 5640

taggtagatg tgaatgcagg gccttgggcc ataacttaca tttctctcaa tttgattagc 5700

tttgagtcac aattaagggg aagcaaaaac atcttgaaaa gactgctagg aaggaaatta 5760

atatcagtca tccagaagta cacgtttctg tattttaaaa aatactttga tgcatttatt 5820

tttaggtgtt tttttttcc ccttaaaaaa cttgaagtga tatgcagcag taatctattt 5880

gttttgcatt gttcttggtg ttttgtgttt cccagatccc tcaagctttc tcagctgttg 5940

cgaattatgt gtatctgtgt gtgtgctaag tacagtctct ttaccaaagg gcactgaaac 6000

acacaattga ctggacaggt ccacgcgcca tgacaaaact ataatcaagt tattaaaact 6060

aaagaggagt gggaaaggaa tgccttggta agtaaaaagg catctatatt taataacttt 6120

tatccagatg gcaacatatt tgcaaaattt gcccagatcc tattacaata ctaaaaatag 6180

aaaatttcac ctccatattc ctgaggtgta atttcattag actagtttta gtttaaaaag 6240

accttcttca gattggacca aataatactt ataagatcag cagaatgttg aatattagct 6300

cactggggtg gggagaagcc actaccattt tttaggtgat ggggatgcca ctgagttgca 6360

acggctagac cttttcaggg tggttgtgtc catgtttgcc tgattggatg cttattcact 6420

ttgtgttttc ttttgtttta ttttgtccaa ttttgtcttt agctgtgttt attaacttct 6480

ccggtcttgt tttgttttaa tgctcttggc ccagtgggtg tcaagaacac tggcttaatt 6540

caagtcagtt gatttttttt ctattaaaac tgttgttaaa atatttttta aaacaaaaac 6600

attatttgtg ccctctttta tatatgtcaa agggacactg tcaagtattt catttttaga 6660

ttttgtttt ataaaatttc tgttgttcat atagtatcct ttaacctcta gttttccata 6720

catcctttgt ttgtttctca ttttattttc cttgacccat ttatttccca aggcacaatc 6780

actaaagact ttgtactttc acagtctgtt aatgtggtag cacctgtaac tgtgttcttg 6840

ttctgttaaa aggattgatt tgcttttata gtccttgtgc tggatgagtg gctgcctcag 6900

tagcaaaact acctgacagt atttgacagt gtcctttcca gcaccattat ttgggtcttt 6960

cagggtggcc atctctgtta gaagacagta gcatgttaac atcactgcat tgagtttttg 7020

tctggtgtaa agtatgactt ttaatgtaaa caaactgcag gttttttca aactaatttt 7080

aagaatttag tcttatttcg ttgtaaactg tgtatctaat tatattacat tactctgttc 7140

agatgggatg gttactacca cttgtccatg attttcattt gaaaagcaag tatctatatc 7200

atttcccccc agtcagcatt atttaacact ccccttaact gtctttgaac tttctctttt 7260

aacaaaaatg tcaagtcttt acagttgtaa tatcaccatg tttcccattt ctgttaatac 7320

ttctatgaac ccctaaagta ttgaagggaa ctagctgtca gtttcaagga ttacaagttt 7380

gagtctccta gtattcaaca tcattctgaa ccctgaaata atatttttct ctgttaaaca 7440

atttttatct gtttgccacc tctgttgtta gaggtggttg tcaattgacc ttactaagtt 7500

agctgtcttt gatgaggaat tattgttatt ggttcctgaa taaaacatta acctttaag 7560

tcagaaggaa cctcggtact tcttaaggtt tgtttgtgtt ttctaaaacc agagaataag 7620

gaactgattt ggctatgagg tttaacatta taattttctg taagctttcc cacaaaaaaa 7680

cattgttgat ttgaggatat aataatgttt taatcttttt aaaatataag tggttattct 7740

ctgacttggt aactatgttc tgaaaacact gcatttaaga atttttaaaa attggttttc 7800

taaaattaaa atgtccaaat taggcatatt gctgagctca aattgatgtg aaatgccatg 7860

gttccagttg aattttaagc atattttcat ttagatataa aatatatgaa gtatgctttg 7920

ttgattatag tgagaaccca tgacatagtt aaccaaagaa tatgtttggt tcaaataaaa 7980

atagaagctt aatactgggc attcatactt tttaaagaga atgaatgaag aaatcggttt 8040

cctgctgtag ttctctatgg gtaagtctta gtaaagacga gaatgctgaa gtcggccgtg 8100

gcgattccct cctaggaact gggaggtgtg gcttgcccat tacccgcttg aagctcacat 8160

ctttaccctc ctctcccact gtggtttgat cttcacctat tcccaggccc tcccagcaat 8220

tggagaggtg tctttttttt tggttttggt ttttttttctc cccgtctgca ttcttaggcc 8280

tcttagctat taggaactgt cagatacata ctagtagcta attttcctag cctgaaatta 8340

tatactgcat ctgcactatg tacctactag ggatctgacc tcaagtgttt tctgagccca 8400

ggcttcctgg tgtggtgtct tttaccacat aaaattatta caaattgcaa atgttggtat 8460

tgtgatttga ttatctgtac aaagaaagaa gctctatgca gtgagtttgt ggtttaatgg 8520

tcacaaaaat gttagcactg ctaccactca gcacgtgtaa aattttttaa atttataaat 8580

attaaaattt taaacttaca ctaagacttt tcagttttat ttaaagaccc agggatgagt 8640

gtactgttta aatatttacc tctattaaca taactaatga aggtataaaa ttgcatttag 8700

tttttcagaa gatgctgcaa tatgatttta ggaaataagg ctatgtattg agccagttat 8760

aggctgaata tcaggttgat aaaattttat ttgtattttt aaaattcata aatgggagtt 8820

aaaatgtgtc ttttcactaa atatttttat tacaaaaaaa aaaaaaaaaa aaaaaaaaaa 8880

aaaaaaaaaa aaaaaactgc ggcc 8904

<210> 65
<211> 241
<212> DNA
<213> Homo sapien

<400> 65
acggtgcctg gcacattaat tcctttcctc ttttcccctc actgccaaat gagctattgc 60

cactcacttg atatgcaaac actggctgtc tagtatggaa aaatattttt ctggctgtag 120

acttgagttt gattaccaaa ttgatttctg tgaattacat ttcaattctg tgcagaactt 180

tttgacagcc ctttaatcac catgtatcca ataaatattt attaaagaca tattctgtga 240

c 241

<210> 66
<211> 368
<212> DNA
<213> Homo sapien

<400> 66
ccaataaatt gaatactgaa tatttggaca attgcctctc tctaagtgct ctagaagctt 60

ctagagggaa ggaatcttgt cttatacatt aaaaaaaaaa aaaaaaaagt cttatccagt 120

ctgaagtacg gtgcctggca cattaattcc tttcctcttt tcccctcact gccaaatgag 180

ctattgccac tcacttgata tgcaaacact ggctgtctag tatggaaaaa tatttttctg 240

gctgtagact tgagtttgat taccaaattg atttctgtga attacatttc aattctgtgc 300

agaacttttt gacagccctt taatcaccat gtatccaata aatatttatt aaagacatat 360

tctgtgac 368

<210> 67
<211> 745
<212> DNA

<213> Homo sapien

<400> 67
tggtcgcggc cgaggtacta atttttgctc ccaccagctg gaggggggagg ggccaaattt 60

ccatatttgc aaatctggga gacgaacaat ggtgtgtttt ttatgcctct tattacgaat 120

gagtttgaac atcttttcaa atatttaaga gtcacctgta gctcattttc cataaactgt 180

cagttcatat cctttgccca ctttttttatt ggcttttggt ctttttcctg ttgagttgta 240

aaagcacttt tcatgttaag ggaatttgct ctttgtctat tatatggtta tactgtcatt 300

taaacatggt ggcatagttg cttatagaat gtctgaacca tatgcgtcat tgttagatat 360

ttatattggg tctcatttct cttgtattat atactgggat gttttccctg ctttttctgt 420

ccccatcaac aacacacaaa acacacacac cccaaacccc ggcgcggaaa acacaggggc 480

acctacctgc cccccggggg gtgacaccgt ccgatcaccg cggctccaaa attccccaca 540

gcacaactat cgccgacgca acagggccac tgaataccgc cacagagcga cacgcgacga 600

cttcacaccg cgaccgtacg acgcacacgg caacacaaag acgcgccgag gcaaccacat 660

acggacacgc gagaacggca gatggcgacc acgcgccaaa cccaccaaga gcacaacaca 720

cagaaccacg cacaacgcac gccca 745

<210> 68
<211> 1064
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (93)..(93)
<223> a, c, g or t

<400> 68
ctctaacttg ggtttttttt ttttaaactt agtgcaattt ggaaatcttt ctacatcaaa 60

attttaaaat ctgccctttc cctctttctt ttnaacagct gcctagtatt tcaccgtatg 120

actgctctgt aattgatcta acagttgtag aacacttagg ttatttcctg tcttttgcta 180

tttcaacagt gctgtaatga atatccttgg tcaggcatca tttttcatac gtgggagtga 240

atctttaaga aaaccaggag tggatttgca aggtcaaggg gaatatgcag tttgaacttg 300

gataaataag gcaaattatc ccccttaaa tgttgtacta atttttgctc ccaccagctg 360

gaggggggagg ggccaaattt ccatatttgc aaatctggga gacgaacaat ggtgtgtttt 420

ttatgcctct tattacgaat gagtttgaac atcttttcaa atatttaaga gtcacctgta 480

gctcattttc cataaactgt cagttcatat cctttgccca ctttttttatt ggcttttggt 540

cttttttcctg ttgagttgta aaagcacttt tcatgttaag ggaatttgct ctttgtctat 600

tatatggtta tactgtcatt taatatggtg gcatagttgc ttatagaatg tctgaaccat 660

atgcgtcatt gttagatatt tatattgggt ctcatttctc ttgtattata tactgggatg 720

ttttccctgc ttttttctgtc cccatcaaca acacacaaaa cacacacacc ccaaaccccg 780

gcgcggaaaa cacaggggca cctacctgcc ccccgggggg tgacaccgtc cgatcaccgc 840

ggctccaaaa ttccccacag cacaactatc gccgacgcaa cagggccact gaataccgcc 900

acagagcgac acgcgacgac ttcacaccgc gaccgtacga cgcacacggc aacacaaaga 960

cgcgccgagg caaccacata cggacacgcg agaacggcag atggcgacca cgcgccaaac 1020

ccaccaagag cacaacacac agaaccacgc acaacgcacg ccca 1064

<210> 69
<211> 549
<212> DNA
<213> Homo sapien

<400> 69
agatgatgac tcatatggcg aatgggcact aatgcatgct cgagcggcgc agtgtgatgg 60

attggtcgcg gcggaggtac tcttgaggac attttgtcag attaactata acagtgtagt 120

gtagttttta aaatgcagtg aaaagtttag ctgtctggaa gtcaaattta tccaatgttc 180

agacttctgt tactacttaa tatgaagcca ccatgctggc tggacagaat taatttcatt 240

catgttatgg agaattctat attacaaatc tggtccccta taatatgaac aggagcagtc 300

agaaatatac aaagggttaa atagggtaaa gacttggcca agaaaggaaa ggccttagtt 360

ctaccataga gtatcttctc taattaaaat gacgggaaat atatggaagc agaaaccagc 420

acaaagcact acccatctag aaataatctt tcagttaaaa aacaactctc aaaaccagca 480

ctcatttctc taagataggt tataagtatt ttacgatttc tgtgttatat taacatctgg 540

ttaaaggta 549

<210> 70
<211> 774
<212> DNA
<213> Homo sapien

<400> 70
ttttttttttt aactggttgt aaaaaaggtt tatttgtgac aaaaagttaa gtactaaagc 60

taaaaacata taaattcagg tcaggctata ttaaaataca cacataccct tctttgcaaa 120

attattaaag gttgaattaa acagatgctt taaataaaat aaagtactct tgaggacatt 180

tttgtcagat taactataac agtgtagtgt agtttttaaa attgcagttg aaaagtttag 240

ctgtcttgga agtcaaattt atccaattgt tcagacttct gttactactt aatatgaagc 300

caccatgctg gcttggacag aattaatttc attcatgtta tggagaattc tatattacaa 360

atctggtccc ctataatatg aacagtgagc agtcagaaat atacaaaggg ttaaataggg 420

taaagacttt ggccaagaaa ggaaaggcct tagttctacc atagagtatc ttctctaatt 480

aaaatgactg ggaaatatat ggaagcagaa accagcacaa agcactaccc atctagaaat 540

aatctttcag ttaaaaaaca actctcaaaa ccagcactca tttctctaag ataggttata 600

agtattttac gatttcttgt tatattaaat tgagttaaag gtactgacaa gtcaatatgc 660

aaatgggttt aaacactaat ttgatttctc ttctgactag ctctggagag ctgtgacatc 720

tggatgttgg tgcccagttg gtgtggagtg tgtagttttg ttatgaaagt tctc 774

<210> 71
<211> 881
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (601)..(601)
<223> a, c, g or t

<400> 71
cggccgaggt acattgaaac cccatatacc cttcacctag attcaccagt gttagcgcct 60

ggtgatattt tccatatcta tgtatatgtg tgggatgtga atatatttct ttttctttcc 120

gttgcttctg gctaaacgtt gagacctcat gatacttcac ccccatatat atcagcatgt 180

atctcccagg atgaagaata ctcttccatg aaatcataat acaattatca cagtaaacat 240

gtttcaacac aactatctaa gttagggtct atattaaaaa ctcctcagtt atcatactaa 300

tgcccacatg tttctccatt tgttgatcat cccatcatga ttagattaag tagtttgtca 360

ggaatacaac ataggtgaag ttgtatcctc atgtatcaca tcaggagata ttctgtcacc 420

cattataagt aatattaact ttaattactt gatatatggg ttttctgctg tgcaacaaat 480

taccacaaac tgagcatgta ttgcatgtga aacaacaccc ttgtagttct gtagattata 540

aatctggctg ggtttccctg ctcaagattt tacaaggcca aagtcaaggt cttggccggg 600

nctaggctct tacctggagg ctctggggaa gaatctgttt ccaaggctca ttcaggttgt 660

gaccgaattt agtttccttg tggcaggccc aggggctcac acctgtaaaa ccagcagttt 720

gggaggccga gggggggtgg atcacttgtg atcaggggtt tgggaccagc tggcaacatg 780

tggaatggtg ctcctctaaa ataccaaaat agccgggtgg gggagcgcgt atcacgatat 840

ccgggggggg gggggttgtg taccccttcc tcctaggagg g 881

<210> 72
<211> 1735
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1024)..(1024)
<223> a, c, g or t

<400> 72
atataatcct tagccagtct ataaaagatc tctggtctgc ataggcagta gcttggactg 60

tccattctaa tctaccccaa tagtttatct tatttacagt ttttatttat agtttctttt 120

acttagtagt tattacaata aataacatcg acccaataca actatctaag atagggccct 180

tattcaaaat gccttttac cagctaaaac tgtttaaata ttgctaacac ctgaaactat 240

agttcgaaca caggtattta tgggagcagg gaaaaaagaa caaaaaacag ttaacaagca 300

tattctgtaa aaattgttag gattttgttt tgcttaatac atttttaaaa aatgttcttc 360

ctcaattttt tactttgaac aatttcaaac ctacagaaaa gttgaatgaa ttagtacata 420

gaaaccccat ataccttca cctagattca ccagtgttag cgcctggtga tattttccat 480

atctatgtat atgtgtggga tgtgaatata tttctttttc tttccgtttg cttcttggct 540

aaactgtttg agacctcatg atacttcacc cccatatata tcagcatgta tctcccagga 600

tgaagaatac tcttccatga aatcataata caattatcac agtaaacatt gtttcaacac 660

aactatctaa gttagggtct atattaaaaa ctcctcagtt atcatactaa tgcccacatg 720

tttctccatt ttgtttggat ccatcccatc atggattagg attaatggta tttttgtcag 780

ggaatacaac ataggtgaag ttgtaatcct catggtatca catcaggaga tattctggtc 840

acccattata agtaatatta actttaatta cttgatatat gggttttctg ctgtgcaaca 900

aattaccaca aactgagcat gtattgcatg tgaaacaaca cccttgtagt tctgtagatt 960

ataaatctgg ctgggtttcc ctgctcaaga ttttacaagg ccaaagtcaa ggtcttggcc 1020

gggnctaggc tcttacctgg aggctctggg gaagaatctg tgtccaagct cattcagttg 1080

ctggcagaat ccagttcctt ggggttgtag gactgatgtc cccatttatt gctgaatatc 1140

cactgagggt tactctcagc tcctgtaagc tgcttttggg ttctttccac atggacccct 1200

ccatcttcaa agccaggaat ggaagatttc tctcatattg aatatcttct ctctgacttc 1260

tccttgtatt atcaactgga gaaaacactc tgcttttaaa gcattctcct cccaatgagt 1320

gggaaatccc ctccttcctt tctagcactg tttctgtgac tcctggagag gtgctcagga 1380

ggtagaccca tggcctgcat tcaccgctga agctgaaggc tgccttggcg aagacaggtt 1440

ttgtcaaagt agtggctgtg aatgtgacct tacgtaaaaa taaggtttct gcggatggta 1500

tcaagaagag gttatgagag ggcccttttat ccactgcgac tggtgccctt ataagaggaa 1560

aattttgacc cagaggcaca caaggagagc tccatgtgac aatagaggga cagattggag 1620

ggatgcagct gcaagcaaag gaacgccgag gattgacggc caccatcaga agcttggtgc 1680

aagacaccgt cctctcacct ggattattgc cgaagctgct aacttgtctc tccat 1735

<210> 73
<211> 429
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (231)..(231)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (245)..(246)
<223> a, c, g or t

<400> 73
actttttag tatttacctg ttacaaagga cattgtgttt cctgtcatgt aaaaccagct 60

attttagtta ctattgtact ctagaaaaga gctgtagatt tatgttaaac tcgtacttac 120

gaacaattgt aattagttct aaaaggcatg aactcagctc ctaatcgtca ctgtatagtc 180

ctgaatttgt agaactagag ttaattccct ttcttggaaa cttttccttt ntgtgtctct 240

caagnntagt tacttttttc cttacctaaa agggttgtct gtcacaacca agtctccctt 300

cgaaccatta acaacttttc ctggtgtatt cgacaacaaa aaaaacaaaa aacaaaaaaa 360

aaggctgggg gaacacaggg ccacaggggt ccccgggggg agaaactggg catacccggc 420

ctacaaaat 429

<210> 74
<211> 563
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature

<222> (49)..(49)
<223> a, c, g or t

<400> 74
gatgattatc actataggca cttcggtctc taatgctgct cgagcggcnc cagttgtatg 60

gatccgcccg ggcaggtctt attcatacac atttcacttg gctttttacc cctaggaaat 120

aattgtccaa gtatatatct cgtcttcttt cttgtaactt tgattaaact gcttacttca 180

acttacaaca ttgtaaagcc agaatacctc attttaacag tgaaaaaaaa tatgatgacc 240

tgatgtgttc tcttgtattt gatttgaact acctaaatag gcttaactgt aataataaat 300

atacaatttt ggcaggcatt ttttcctttg tttggatgaa cattttgtta ttggtccact 360

tctaattttg tcttaaagag ttataactca gtgtcaataa aacatcttgt tatattaagt 420

tattggcaaa aaaaaaccac aaacaaaaaa acaaaaaaaa cctttgggat tacccaagtg 480

gccatatact atttccctgt gtttctaaaa ttgtgtttct ctccgcttca acattttccc 540

acaaaaattt caccaacaaa agt 563

<210> 75
<211> 1775
<212> DNA
<213> Homo sapien

<400> 75
ttacaaccat tgccttggga cacacagagt gaactgtttg agtgataagt aatttaggta 60

gaaactttac ccttaatttc aaatgatacc aaacagctca ttactacccc aagggacgct 120

ctccgtagct tctggattcc ccagtttcct tctagaaaca aggactccaa tagcactata 180

accctaaaca ggccctaacc cagaagaata caccacaaaa tgcgattgat tttctcaaaa 240

tatcacagtc ttagacacta tacaaataat tcaagaaaat tctttctacc ctgcagtgga 300

tatagtattc tattatattc tccagcaaaa cttttaggac ttttcaaact catttctaag 360

ccaaatagtt tagataaata tttaccctta tatttggggg gaattcaggc tcaccatttg 420

ccgaggcaag cccatcaaca gtctagaggc atattctgtg tcattccttc ccgtctcctt 480

catagaatac tacttttttcc ttttgtctcc tggccattct ccatcatctg ctgattattg 540

ctaaccacag gatgctgggc aaagcttaca gtgataggca catgtgttca gtgatgtcca 600

atacactctt atcacagtgg ttattgcttc ttactctttt caaatgcatt attctacccc 660

tcaacctaca tccaatcatt agaactatac ctgactggag cccagaactt gggaccaata 720

cttaattcaa atagcagggg cttgctcaca aacattaagc ccaaaaagaa gcacagcact 780

ttgaaaagtc aaataggcct ttggtagctc tgtacatttg caattttaca tttgttatta 840

gtttatagca ctaataacac ttcagtcgtg aatctacagt ctcaatatga taagtcttag 900

aacatgttct agaaatagtg gtaccttgct gctattatac ttagtaactt ataccccaat 960

ataataataa gtattaaata cagattgtgt atgcattctt tgtgtgtata tgccaactgt 1020

actacttaac ctcactgatg agcaattaga aaaatacaca aattgtcata gtgaaaataa 1080

gtcttggtca attcagatga tacgtgaacc tgataaatgc tctaatagat atgctatttt 1140

gtcctgtatt gcttgtttta cagtatggtg catgttgttt gctaagtaaa atgataataa 1200

taataaagta taccaatttt aaggttagaa ttaaaatttt gcacatatgc ttcttgatat 1260

tctgaaatgt attctgtggc ttaattatct tattcataca catttcactt ggctttttac 1320

ccctaggaaa taattgtcca agtatatatc tcgtcttctt tcttgtaact ttgattaaac 1380

tgcttacttc aacttacaac attgtaaagc cagaatacct cattttaaca gtgaaaaaaa 1440

atatgatgac ctgatgtgtt ctcttgtatt tgatttgaac tacctaaata ggcttaactg 1500

taataataaa tatacaattt tggcaggcat tttttccttt gtttggatga acattttgtt 1560

attggtccac ttctaatttt gtcttaaaga gttataaact cagtgtcaat aaaacatctt 1620

gttatattaa gttattggca aaaaaaaacc acaaacaaaa aaacaaaaaa aacctttggg 1680

attacccaag tggccatata ctatttccct gtgtttctaa aattgtgttt ctctccgctt 1740

caacattttc ccacaaaaat ttcaccaaca aaagt 1775

<210> 76
<211> 511
<212> DNA
<213> Homo sapien

<400> 76
atgatatata tagcgaatgg cctctaatca tctcgagcgc gcatgtgatg gatccggcgc 60

cggcaggtac tgatctaacc aagatatttt gtttttctca tccaccagtc actttctcag 120

tcctttctgt atcccttgca aatttgaaca aagctttttt ttttttttt ttttttttt 180

tttatggcca aaatattttt tttttcccaa aatttattta attccctttt tttctttttt 240

attggttaaa ataacttttg aaaaaatcgt tcttttgaaa aatatgaggt ccatattttt 300

acaacggcca cctttgaata tagttccaca gtttgccgcc aaaaatatcc tctctttaaa 360

acaaaggggg gtttctttgg aattgcccat atttttatct tgccaaaaaa aagctctgcg 420

agtatctcct tgtatatata gctgtgttcc tctgtgtgaa tttgtttttc cgtctacaca 480

tttcccacac aatcatcaaa gaaaaggata g 511

<210> 77
<211> 646
<212> DNA
<213> Homo sapien

<400> 77
gggattacag gcatgagcca ctgcacccgg ccacttttt tttttaaaga aaaatgctct 60

gcatggattg gagacacagc aataactact gttgccatgg aagggttaac agtgtaggag 120

ctggtttatc agtccgcttt gacatacagc taaaggaaat ttatgtttgg gggaaaaagg 180

ccctctgttc actttaaaat tcagtgtgga cttatgccaa agggggctgt ttaagttgaa 240

agaagccaag ttaagtttgg cctcttgcct ggaatcactt gaattctgaa atttcactgc 300

gacggacatg tgccttgtca cattttccat tgcttaatcc tgaagttggg tgcaagtctc 360

tctgcaccta ttaaaaagtg atgtatatac ttccttctta ttctgttgag ttgtatagaa 420

tggtcttttg tatttaacac tttgtaattt tcacaatatt ttttaattta aataaataaa 480

cacttttttc cctcctgcga aaaaaaaaaa aaggctgggc gtatcgtggc aaagctgtgc 540

ctgggtgaat ggtttccgct ccatcccatc tcgcagcaaa aaaatgtgtc gaaaccgaag 600

acaaacaaac ggggagagac aaaaagacag aaagacaaat aactaa 646

<210> 78
<211> 493
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (264)..(264)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (250)..(250)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (308)..(308)
<223> a, c, g or t

<220>
<221> misc_feature
<222> (311)..(312)
<223> a, c, g or t

<400> 78

ggtgatagtc atatagggcg atgggcctct agatgctgct cgagcggcgc caggtgatgg 60

atcgaggtac tgaataggaa agggaagttt tattggaacc ttctaagagg aaatcaacca 120

ggaccaaaga gccttaaagg acacacagca atgcacggca cttcccttcc ccagctggct 180

gccctaggtg atttctcaag ctccttgggg gactgtgttt ctcatctgga atcaatgtgt 240

gtatgagttn tgtctggtag gatngctgac tctgtccaac agatatcact gtggaattga 300

ataaattngt nngaaagaac caaaaaaaaa aacaaaaaaa caaacaaaaa ggcggggggt 360

aatcctgggg cctaaggcgg gttcccgggg gtggaattgg gtttccccgg ccccacaatt 420

cccccaacaa ctttcacggg aagcaagttg caacaaaagg caaaagaaaa aagaagaaaa 480

ggaaagagaa aca 493

<210> 79
<211> 704
<212> DNA
<213> Homo sapien

<400> 79
cacttaggag ttattagtgc taaaaagggg accgtgcaag gcagcagagt tacatggttc 60

ttcaaatcat gtctgaacct attcttggaa tcttctctat aataagggaa gttctcttac 120

cccactgcca catacctctg ttttaaaaga taagtccact aactgtgagt aaaaatgata 180

tatataggca ttaaccacac actttaatgg gtataatttc ctggctgcct cccttcctca 240

gcccattagg ttaaacacca aagaaagact ggtgtgtact gaataggaaa gggaagtttt 300

atttggaacc ttctaagagg aaatcaacca ggaccaaaga gccttaaagg acacacagca 360

atgcacagcc acttcccttc cccagcttgg ctgccctagg tgatttctca agctccttgg 420

gggactgttg tttctcatct ggaatcaatg tgtgtatgag ttttgtctgg taggattgct 480

gactctgtcc aacagatatc actgtgaatt gaataaattt gttgaaagag aaaaaaaaaa 540

aaaaaaaaaa aaaaaaaaaa aggcgggggg taatcctggg gcctaaggcg ggttcccggg 600

ggtggaattg ggtttccccg gccccacaat tcccccaaca actttcacgg gaagcaagtt 660

gcaacaaaag gcaaaagaaa aaagaagaaa aggaaagaga aaca 704

<210> 80
<211> 455
<212> DNA
<213> Homo sapien

<400> 80
gatcgatata taggcgactc ggtcctctaa tgctgctcga gcggcgcagt tgtgatggat 60

gcgcccgggc aggtcggcga gggaggaaga agcgcggaga gccgttaagt ccatgccggt 120

gtggtggcgg cggcggagac tgcgggccgt agctgggttc tgcgagcata taggttgctg 180

tagataatgt tcttagctgt caatgtttaa aaatacttct gcttcgttac ctcaagtgtg 240

gcatgcagca ttttggaagg aaaattgaag acgtgttcaa gaaaacatga acagaagcaa 300

atgatgaaaa tgagcatttt acttgatgtt gatacatcac aataaattat ggagaaaaaa 360

aaaaaaaaaa aaaaaaaagc tttggggtaa ccttggccaa actttttccc tgtgtgaatt 420

ttttttccgc tcaaattccc caaaaaattt gaaca 455

<210> 81
<211> 1756
<212> DNA
<213> Homo sapien

<400> 81
atggctgatt tcaggcctgg gatagaaaat atagcagatg gacttggggt atggtctaac 60

aaatggcctg tgtcaaaagg acataggagc aaccttgaag ggacccccag tgacaaaaga 120

tgtaagcagg agggggccat aaatcagggc ctggagttcg gtggcatcaa aagagttaga 180

gctaagtctg ggtgtcactg cgtaaagcgg aggccctggg gagtggacgc gttttcacgg 240

aggcatatta agtcgggaaa agacatagaa gcctgtggaa aagcgttaaa gccggtgcac 300

tcagcccccc ttcgcacccg cggaggggcg gggccgcgta ccggaagagg cggggccacc 360

ggagtgccta agagctgtct tccgatgtcg ctcttccttt cccgcgcgac cggtcgaggg 420

aggaagaagc gcgaagagcc gttagtcatg ccggtgtggt ggcggcggcg gagactgcgg 480

gcccgtagct gggctctgcg agcatatagg ttgctgtaga tgaatgttct tagctgtcat 540

gtttaaaaat acttctgctt cgttacctca agtgtggcat gcagcatttt ggaaggaaaa 600

ttgaagacgt gttcaagaaa acatgaacag aagcaaatga tgaaaatgag cattttactt 660

gatgttgata acatcacaat aaattatgga gaaaaataca tatttggcta acttttaatt 720

gctgaacaat aaagtgtttt cttttaaaaa aataacaaca gaacaaaaaa actcccgagg 780

aataagtctc ctcctctcct cttcccctcc ttttaaaaca ttggcgcata gaaaggcata 840

tgcagggact tataagggtg gaaaagacct cctctttagt gaatgtttgt ggttgcccaa 900

gtgaatagaa gtgtgtttcc cacggtgtgc aacaaaactc tagtgggcta catagggggg 960

gaccttggaa tgcacactgt aaagacctgg ggggtcaatg aaacgctttt ggtggcacac 1020

ggccatgtag ggccactatc tcacagaggt tgagcgcacg aaatgcgtgg gataccacat 1080

ctaacgcgat ctacccaagt gggtgccgtt gtgggaacac cggtttgtaa agcaacagag 1140

gggaactatg aaaaatcacg gagagagatt tttcccaata tataaaccac tgcggattaa 1200

acgcctataa aaggctgtaa gaacggcccc tataaggaga ggacacggcc agtcagaacc 1260

caaaacacgg gggggctcc tttaggacag gctgcgagac gaccacacac cacaagggtg 1320

tggccgaccc tcaaacggga aagggtagaa cccccagggg agggtcctcc ccaggccccc 1380

gggggaaaac acactacggt gggacgcatc tgagacagag gagactcgag ggaataaaac 1440

gcctcggcaa aagagaaaca cgtgtggcgg tcatagaacg agcccagtcg ccgacaaatt 1500

cgatgggtcg tcggccccgg tggggacaca ggagaagaaa taccccagac agatgagggg 1560

ttttatccaa aaggcgccat gtgtgcatca tcacgacgtg ggacagggga gaaaggggag 1620

tcacccaaaa gagtagggct gccaggtggg gccaagtcac tgcagaaagg gacccgggga 1680

tctgtgaaat tcgcgccacc tgttgcgacg agagagaatg agaagcggga tcatacggcc 1740

gacccatgag gaacct 1756

<210> 82
<211> 71
<212> PRT
<213> Homo sapien

<400> 82

Met Phe Asn Thr Ala Asn Gly Trp Leu Leu Val Asp Asp Ile Ile Ser
1 5 10 15

His His Gln Met Trp Val Trp Trp Gly Arg Gln Leu His Asp Gly Asp
20 25 30

Lys Gln Ile Ala Ala Gly Gly Gly Arg Pro Ile Leu Tyr Leu Phe Glu
35 40 45

Arg Arg Ala Cys Val Val Leu Cys Gly Asn Tyr Leu Arg Leu Leu Ala
50 55 60

Cys Ser Pro Asn Asn Asn Ile
65 70

<210> 83
<211> 16
<212> PRT
<213> Homo sapien

<400> 83

Met Ala Phe Cys Thr Gly Lys Leu Thr Leu Lys Gln Thr Leu Ser Ser
1 5 10 15

<210> 84
<211> 47
<212> PRT
<213> Homo sapien

<400> 84

Met Leu Gly Cys Phe Val Arg Ile Ile Val Val Val Ser Ser Leu Ser
1 5 10 15

Val Leu Arg Cys Gly Leu Gly Trp Val Glu Tyr Leu Gly Gly Arg Ile
20 25 30

Val Arg Ala Gly Ile Thr Asn Phe His Asn Gln Gly Glu His Gly
35 40 45

<210> 85
<211> 181
<212> PRT
<213> Homo sapien

<400> 85

Met Val Val Asp Pro Pro Arg Gly Gly Ser Leu Ser Phe Ser Gln Leu
1 5 10 15

Ser Gln Pro Thr Trp Phe Ser Ser Pro Leu Pro Ser Trp Gly Val Pro
20 25 30

Arg Ala Pro Gln Ser Val Cys Ser Arg Cys Val Val Gly Lys Cys Val
35 40 45

Ser Leu Pro Pro His Arg Pro Ser Ser His Pro His Lys His Met Gln
50 55 60

Gln Arg Gln Glu His Lys Leu Val Pro Thr Gly Arg Pro Gly Arg Asn
65 70 75 80

Gly Arg Cys Glu Ala Arg Arg Asn His Met Gln Gly Thr Ala Ser Gln
85 90 95

Ser Pro Thr Arg Ile Ala Ala Ser Asp Arg Thr Asp Glu Gln Arg Ile
100 105 110

Ala Pro Pro His His Pro Pro Gly Pro Gln Gly Glu Ile Asn Thr Cys
115 120 125

```
Gly Arg Ala Ala Ser Lys Gly Pro Thr Thr Lys Leu Gly Ala Glu Ser
    130                 135                 140

Gly Arg Thr Met Thr His Thr Glu Arg Arg Arg Pro Lys Gln His Leu
145                 150                 155                 160

Ala Thr Asn Ala Gln Arg Pro Arg Leu His Arg His Pro Thr Cys Ile
                165                 170                 175

Arg Arg Met Ser Asp
            180
```


<210> 86
<211> 209
<212> PRT
<213> Homo sapien

<400> 86

```
Met Pro Ser Val Cys Ser Ala Cys Leu Val Gly Ser Cys Arg Ser Gly
1               5                   10                  15

Pro Ser Ala Leu Phe Leu Ser Ser Leu Leu Val Leu Val Cys Ser Phe
            20                  25                  30

Ser Cys Ser Pro Tyr Ser Ala Ala Arg Ala Arg Ala Ala Val Leu Arg
        35                  40                  45

Leu Ser Leu Arg Leu Val Arg Leu Pro Ala Ala Val Cys Cys Val Leu
    50                  55                  60

Phe Phe Arg Phe Ser Leu Leu Phe His Ser Leu Cys Trp Leu Leu Val
65                  70                  75                  80

Ser His Pro Gly Leu Val Ser Ala His Gly Val Ala Cys Ala Phe Leu
                85                  90                  95

Leu Phe Pro Ala Val Gly Leu Ser Ser Leu Thr Leu Leu Leu Leu Phe
            100                 105                 110

Ala Val Ala Phe Arg Cys Ser Cys Ser Val Ser Ser Leu Ser Leu His
        115                 120                 125

Phe Trp Trp Ser Leu Leu Leu Leu Ser Gly Pro Ser Ser Val Phe Cys
    130                 135                 140
```

```
Phe Gly Leu Phe Ser Val Val Val Ala Leu Leu Ile Val Gly Cys Val
145                 150                 155                 160

Leu Arg Leu Ser Leu Trp Leu Ala Leu Leu Val Arg Trp Gly Thr Phe
                165                 170                 175

Trp Gly Arg Gly Ile Pro Thr Phe Pro His Pro Gly Tyr Thr Leu Gly
            180                 185                 190

Pro Val Phe Pro His Ala Phe Phe Phe Phe Phe Phe Phe Phe Asn
        195                 200                 205

Cys
```


<210> 87
<211> 29
<212> PRT
<213> Homo sapien

<400> 87

```
Met Arg Lys Trp Lys Ser Tyr Leu Gly Val Ile Thr Pro Asn Val Lys
1               5                   10                  15

Pro Glu Arg Gln Arg Tyr Thr His Leu Glu Gly Glu Glu
            20                  25
```

<210> 88
<211> 78
<212> PRT
<213> Homo sapien

<400> 88

```
Met Arg Val Ser Ala Val Val Cys Glu Lys Met Trp Cys Leu Pro Pro
1               5                   10                  15

Arg Ala Thr Asn Ile Ser His Thr Gln Ile Tyr Arg Ala Gln Thr Asn
            20                  25                  30

Asn Gly Arg Arg Arg Ser Ser Arg Arg Thr Arg Ser Arg Ala Gly Glu
        35                  40                  45

Glu Lys Pro Gly Gln Thr Gly Asp Thr Gly Ser Asn Arg Arg Gly Val
    50                  55                  60

Arg Asp Arg Lys Lys Asp Gly Thr Arg Ala Thr Lys Ser Ala
```

65 70 75

<210> 89
<211> 61
<212> PRT
<213> Homo sapien

<400> 89

Met Pro Val Ile Leu Ala Leu Trp Glu Ala Lys Ala Asp Gly Ser Leu
1 5 10 15

Glu Pro Arg Ser Leu Arg Pro Ala Trp Ala Thr Trp Gln Asn Pro Ile
20 25 30

Ser Thr Lys Asn Thr Lys Ser Arg Pro Gly Thr Val Val His Thr Cys
35 40 45

Asn Pro Gly Ile Leu Gly Gly Arg Asp Arg Trp Ile Thr
50 55 60

<210> 90
<211> 42
<212> PRT
<213> Homo sapien

<400> 90

Met Gly Ser Cys Ser Val Ala Gln Val Gly Val Met Trp His Asp Leu
1 5 10 15

Gly Ser Leu Gln Pro Leu Pro Pro Gly Phe Lys Gln Phe Ser Cys Pro
20 25 30

Ser Leu Leu Ser Ser Trp Asp Tyr Arg Arg
35 40

<210> 91
<211> 52
<212> PRT
<213> Homo sapien

<400> 91

Met Leu Pro Ser Ser Gly Val Tyr Ile Ser Ala Leu Leu Leu Tyr Ile
1 5 10 15

Glu Leu Cys Thr Thr Asn Ile His Ser His Cys Val Asn Asn Pro Asn
20 25 30

Ile Thr Lys Gly Phe Arg Pro Gly Gly Glu Trp Ala Phe Phe Arg Ser
35 40 45

Pro Thr Asn Cys
50

<210> 92
<211> 143
<212> PRT
<213> Homo sapien

<400> 92

Met Pro Leu Leu Pro Gly Ser Leu Ala Ser Phe Phe Ser Leu Thr Cys
1 5 10 15

Val Asp Leu Ser Leu Arg Leu Ser Ser Ser Leu Cys Pro Leu Ser Leu
20 25 30

Pro Pro Cys Pro Pro Pro Ile Pro Val Pro Leu Ala Arg Pro Ser Leu
35 40 45

Phe Phe Ala Ala Phe Ser Pro Leu Ser Ser Leu Ala Phe Arg Ser Pro
50 55 60

Leu Ser Ser His Tyr Val Leu Leu Pro Asp Asp Arg Phe Arg Asp Val
65 70 75 80

Pro Ala Val Pro Arg Thr Ser Thr Pro Pro Phe Ser Thr Ala Ser Arg
85 90 95

Leu Leu Arg Leu His Pro Thr Ser Lys Leu Arg Pro Tyr His Pro Pro
100 105 110

Asn Thr Ala Pro Cys Cys Asn Thr Pro Ser His Leu Pro Ala His Ala
115 120 125

Pro Val Pro Pro Ser Arg His Leu Pro Leu Ser Pro Leu Ala Ser
130 135 140

<210> 93
<211> 83
<212> PRT
<213> Homo sapien

<400> 93

Met Lys Trp Gly Pro Lys Lys Arg Gly Ile Gln Glu Thr Ser Ser His
1 5 10 15

Thr Glu Arg Ser Pro Phe His Arg Arg Gly Gly Pro Val Gly Pro Pro
20 25 30

Val Ala Gly Ala Val Val Ser Leu Asn Asn Thr His Pro Ser Arg Thr
35 40 45

Asn Arg Leu Leu Ser Ile Ile Phe Pro Arg Pro Pro Pro Pro Arg Gly
50 55 60

Pro Leu Pro Pro Phe Gly Ala Pro Pro Pro Gln Ile Lys Lys Pro Ile
65 70 75 80

Pro Phe Phe

<210> 94
<211> 73
<212> PRT
<213> Homo sapien

<400> 94

Met Glu Leu Arg Pro Ser Leu Ser Gly Ile Lys Lys Ala Lys Val Pro
1 5 10 15

Pro Thr Pro Pro Pro Pro Tyr Glu Asn His Gln Ser His His Leu Gly
20 25 30

Gly Asp Pro Lys His Leu Gly Pro Ile Leu Gln Val Lys Thr Ile Arg
35 40 45

Arg Asn Val Trp Asp Thr Gln Asn Glu Ile Ala Asn Gly Arg Arg Asp
50 55 60

Ala Pro Cys Gln Leu Cys Phe Ser Asp
65 70

<210> 95
<211> 37
<212> PRT
<213> Homo sapien

<400> 95

Met Ser Pro Leu Arg Tyr Leu Thr Arg Phe Gln Phe Ser Gly Gly Pro

1 5 10 15

Val Arg Lys Gly Lys Gly Glu Lys Ser Asn Ile Asn Ser Val Leu Ala
20 25 30

Gly Glu Leu Pro Ile
35

<210> 96
<211> 151
<212> PRT
<213> Homo sapien

<400> 96

Met Phe Ser Cys Leu Gly Asn Gly Pro Arg Gly Phe Ala Pro Cys Ile
1 5 10 15

Trp Glu Gly Pro Leu Gly Cys Ser Leu Arg Ser Asp Ser Ala Trp Arg
20 25 30

Leu Val Pro Arg Ser Ser Gly Pro Leu Val Cys Val Phe Phe Val Arg
35 40 45

Ser Asn Gly Val Gln Thr Val Val Pro Val Gly Ile Arg Ala Ser Ile
50 55 60

Ala Val Gly Val Ser Val Ala Leu Tyr Trp Arg Trp Leu Phe Ser Ala
65 70 75 80

Ser Val Leu Glu Cys Val Ile Leu Ala His Val Val Tyr Leu Leu Cys
85 90 95

Pro Pro Leu Asp Arg Ser Leu Phe Cys Phe Glu Arg Met Ser Trp Thr
100 105 110

Ser Leu Cys Phe Leu Val Arg Ala His Ser Asp Val Val Arg Leu Leu
115 120 125

Leu Cys Phe Trp Met Gly Leu Leu Phe Trp Phe Val Gly Leu Met His
130 135 140

Cys Gly Ile Cys Asn Gly Ser
145 150

<210> 97

<211> 60
<212> PRT
<213> Homo sapien

<400> 97

Met Ile Thr Thr Arg Glu His Ala Ser Glu Pro Leu Cys Asn Arg Pro
1 5 10 15

Arg Phe Thr Gly Ser Tyr Leu Gly Glu Ser Gly Leu Ser Arg Gly Ala
20 25 30

Leu Leu Val Val Thr Pro Gln Val Thr Met Leu Glu Leu Trp Ser Pro
35 40 45

His Tyr Ile Trp Cys Ser Ile Lys Tyr Gly Gly Leu
50 55 60

<210> 98
<211> 59
<212> PRT
<213> Homo sapien

<400> 98

Met Trp Arg Arg Gly Ser Arg Ile Glu Arg Ile Asn Thr Ala Met Ile
1 5 10 15

Arg Leu Ile Thr Arg Val Cys Leu Ser Asp Phe Met Leu Phe Ala Cys
20 25 30

Leu Val Thr Tyr Gln Phe Arg Arg Asn Gly Met Thr His Ala Leu Leu
35 40 45

Ser Ser His His Ser Ile Arg Leu Thr His Ala
50 55

<210> 99
<211> 133
<212> PRT
<213> Homo sapien

<400> 99

Met Cys Asp Trp Glu Asn Ala Ser Gly Arg Ser Lys Cys Asp Arg Pro
1 5 10 15

Thr Ser Leu Arg Gln Leu Pro Ala Arg Arg Arg Ile Leu Ala Arg Thr
20 25 30

Val Pro Pro Gly Thr Met Ser His His Ala Phe Pro Thr Pro Leu Pro
35 40 45

His Phe His His His Ala His Arg Ala Ala Thr Gly Asp His Thr Trp
50 55 60

Arg Thr Trp Pro Tyr Phe Phe Cys Ile Glu Trp Glu Gln Arg Leu Leu
65 70 75 80

Leu Ser Pro Leu Gln Asp Phe Leu Arg Ala Ala Phe Asp Cys Ser Ser
85 90 95

Phe Val Arg Cys Gly Val His Gln Pro Thr Ala Val Arg Gln Met Ser
100 105 110

Arg Ala Pro Gly His Gly Thr Arg Arg Pro Pro Cys Ala Arg Val Pro
115 120 125

Arg Pro Arg Pro Arg
130

<210> 100
<211> 22
<212> PRT
<213> Homo sapien

<400> 100

Met Gln Asp Gln Ala Arg Thr Asn Lys Glu Gln Gln Thr Arg Thr Lys
1 5 10 15

Arg Ser Glu Gln Ala Ser
20

<210> 101
<211> 52
<212> PRT
<213> Homo sapien

<400> 101

Met Phe Tyr Ile Lys Ser Met Leu Leu Leu Asp Glu Lys Asn Leu Lys
1 5 10 15

Lys Gln Lys Lys Lys Lys Lys Lys Lys Lys Arg Leu Gly Glu Leu Gly
20 25 30

Lys Gly Ala Pro Gly Gly Ile Gly Tyr Arg Ser Lys Ser Thr Lys Asn
35 40 45

Arg Arg Lys Val
50

<210> 102
<211> 80
<212> PRT
<213> Homo sapien

<400> 102

Met Phe Cys Gly Gly Val Cys Leu Ala Thr Pro Ser Arg Leu Trp Ile
1 5 10 15

Leu Pro Pro Thr Ser Ser Pro Ser Leu Leu Ser His Leu Gly Gly Gly
20 25 30

Asp Ser Leu Ser Leu Val Trp Cys Val Met Pro Arg Leu Phe Cys Leu
35 40 45

Ala Val His Thr Asp Ile Leu Arg Arg Arg Cys Phe Tyr Gly Gly Gly
50 55 60

Arg Pro Thr Val Leu Leu Thr Pro Pro Leu Met Tyr Pro Ala Ala Asp
65 70 75 80

<210> 103
<211> 120
<212> PRT
<213> Homo sapien

<400> 103

Met Leu His Gln Phe Phe Val Ser Ala Lys Ile Phe Phe Val Trp Arg
1 5 10 15

Ile Leu Cys Gly Arg Gly Gly Tyr Thr His Phe Phe His Thr His Gly
20 25 30

Gly Arg Thr His Ser Phe Cys Val Pro Ser Glu Val Tyr Arg Pro Pro
35 40 45

Arg Thr Phe Leu Phe Val Arg Tyr Thr Arg Glu Ile Leu Tyr Val Cys
50 55 60

Ser Leu Phe Ser His His Gly Ala Pro Gln Gly Glu Thr His Ser Trp

65 70 75 80

Cys Leu His Ser Val Ser Ala Leu Ser Ser Cys Ser Arg Glu Lys Ser
85 90 95

Arg Arg His Pro Thr Thr Arg Glu Trp Trp Leu His Ala Ile Glu Cys
100 105 110

Val Phe Gln Ser Glu Ile Phe Leu
115 120

<210> 104
<211> 28
<212> PRT
<213> Homo sapien

<400> 104

Met Arg Glu Ala Glu Ser Gly Phe Lys Gln Ile Gly Val Arg Gln Ala
1 5 10 15

Thr Leu Tyr Phe Ser Val Leu Ala Tyr Gln Cys Cys
20 25

<210> 105
<211> 150
<212> PRT
<213> Homo sapien

<400> 105

Met Ser Gly Glu Leu Ser Asn Arg Phe Gln Gly Gly Lys Ala Phe Gly
1 5 10 15

Leu Leu Lys Ala Arg Gln Glu Arg Arg Leu Ala Glu Ile Asn Arg Glu
20 25 30

Phe Leu Cys Asp Gln Lys Tyr Ser Asp Glu Glu Asn Leu Pro Glu Lys
35 40 45

Leu Thr Ala Phe Lys Glu Lys Tyr Met Glu Phe Asp Leu Asn Asn Glu
50 55 60

Gly Glu Ile Asp Leu Met Ser Leu Lys Arg Met Met Glu Lys Leu Gly
65 70 75 80

Val Pro Lys Thr His Leu Glu Met Lys Lys Met Ile Ser Glu Val Thr
85 90 95

Gly Gly Val Ser Asp Thr Ile Ser Tyr Arg Asp Phe Val Asn Met Met
100 105 110

Leu Gly Lys Arg Ser Ala Val Leu Lys Leu Val Met Met Phe Glu Gly
115 120 125

Lys Ala Asn Glu Ser Ser Pro Lys Pro Val Gly Pro Pro Pro Glu Arg
130 135 140

Asp Ile Ala Ser Leu Pro
145 150

<210> 106
<211> 61
<212> PRT
<213> Homo sapien

<400> 106

Met Ser Lys Ser Leu Ile Ser Gln Lys Arg Leu Lys Ile Tyr Cys Asp
1 5 10 15

Ser Met Thr Ser Tyr Pro Lys Asp Lys Asn Val His Lys Ile Ser His
20 25 30

Ser Leu Asn Ile Cys Cys Tyr Phe His Ser Lys Met Ile Lys Ile Asn
35 40 45

Phe Ile Leu Pro Pro Val Gln Lys Tyr Leu Lys His Lys
50 55 60

<210> 107
<211> 32
<212> PRT
<213> Homo sapien

<400> 107

Met Gly Ser Asp Trp Gln Lys Leu Ile Ser Ser Gln Trp Glu Pro Thr
1 5 10 15

Glu Leu Ser Arg Val Pro Arg Lys Lys Thr Gly Ala Ile Ser Gln Ser
20 25 30

<210> 108
<211> 638
<212> PRT

<213> Homo sapien

<400> 108

```
Met Pro Leu Pro Leu Leu Pro Met Asp Leu Lys Gly Glu Pro Gly Pro
1               5                  10                  15

Pro Gly Lys Pro Gly Pro Arg Gly Pro Pro Gly Pro Pro Gly Phe Pro
            20                  25                  30

Gly Lys Pro Gly Met Gly Lys Pro Gly Leu His Gly Gln Pro Gly Pro
        35                  40                  45

Ala Gly Pro Pro Gly Phe Ser Arg Met Gly Lys Ala Gly Pro Pro Gly
    50                  55                  60

Leu Pro Gly Lys Val Gly Pro Pro Gly Gln Pro Gly Leu Arg Gly Glu
65                  70                  75                  80

Pro Gly Ile Arg Gly Asp Gln Gly Leu Arg Gly Pro Pro Gly Pro Pro
                85                  90                  95

Gly Leu Pro Gly Pro Ser Gly Ile Thr Ile Pro Gly Lys Pro Gly Ala
            100                 105                 110

Gln Gly Val Pro Gly Pro Pro Gly Phe Gln Gly Glu Pro Gly Pro Gln
        115                 120                 125

Gly Glu Pro Gly Pro Pro Gly Asp Arg Gly Leu Lys Gly Asp Asn Gly
    130                 135                 140

Val Gly Gln Pro Gly Leu Pro Gly Ala Pro Gly Gln Gly Gly Ala Pro
145                 150                 155                 160

Gly Pro Pro Gly Leu Pro Gly Pro Ala Gly Leu Gly Lys Pro Gly Leu
                165                 170                 175

Asp Gly Leu Pro Gly Ala Pro Gly Asp Lys Gly Glu Ser Gly Pro Pro
            180                 185                 190

Gly Val Pro Gly Pro Arg Gly Glu Pro Gly Ala Val Gly Pro Lys Gly
        195                 200                 205

Pro Pro Gly Val Asp Gly Val Gly Val Pro Gly Ala Ala Gly Leu Pro
    210                 215                 220
```

```
Gly Pro Gln Gly Pro Ser Gly Ala Lys Gly Glu Pro Gly Thr Arg Gly
225                 230                 235                 240

Pro Pro Gly Leu Ile Gly Pro Thr Gly Tyr Gly Met Pro Gly Leu Pro
                245                 250                 255

Gly Pro Lys Gly Asp Arg Gly Pro Ala Gly Val Pro Gly Leu Leu Gly
            260                 265                 270

Asp Arg Gly Glu Pro Gly Glu Asp Gly Asp Pro Gly Glu Gln Gly Pro
        275                 280                 285

Gln Gly Leu Gly Gly Pro Pro Gly Leu Pro Gly Ser Ala Gly Leu Pro
    290                 295                 300

Gly Arg Arg Gly Pro Pro Gly Pro Lys Gly Glu Ala Gly Pro Gly Gly
305                 310                 315                 320

Pro Pro Gly Val Pro Gly Ile Arg Gly Asp Gln Gly Pro Ser Gly Leu
                325                 330                 335

Ala Gly Lys Pro Gly Val Pro Gly Glu Arg Gly Leu Pro Gly Ala His
            340                 345                 350

Gly Pro Pro Gly Pro Thr Gly Pro Lys Gly Glu Pro Gly Phe Thr Gly
        355                 360                 365

Arg Pro Gly Gly Pro Gly Val Ala Gly Ala Leu Gly Gln Lys Gly Asp
    370                 375                 380

Leu Gly Leu Pro Gly Gln Pro Gly Leu Arg Gly Pro Ser Gly Ile Pro
385                 390                 395                 400

Gly Leu Gln Gly Pro Ala Gly Pro Ile Gly Pro Gln Gly Leu Pro Gly
                405                 410                 415

Leu Lys Gly Glu Pro Gly Leu Pro Gly Pro Pro Gly Glu Gly Arg Ala
            420                 425                 430

Gly Glu Pro Gly Thr Ala Gly Pro Thr Gly Pro Pro Gly Val Pro Gly
        435                 440                 445

Ser Pro Gly Ile Thr Gly Pro Pro Gly Pro Pro Gly Pro Pro Gly Pro
    450                 455                 460
```

Pro Gly Ala Pro Gly Ala Phe Asp Glu Thr Gly Ile Ala Gly Leu His
465   470   475   480

Leu Pro Asn Gly Gly Val Glu Gly Ala Val Leu Gly Lys Gly Gly Lys
                485   490   495

Pro Gln Phe Gly Leu Gly Glu Leu Ser Ala His Ala Thr Pro Ala Phe
            500   505   510

Thr Ala Val Leu Thr Ser Pro Phe Pro Ala Ser Gly Met Pro Val Lys
        515   520   525

Phe Asp Arg Thr Leu Tyr Asn Gly His Ser Gly Tyr Asn Pro Ala Thr
    530   535   540

Gly Ile Phe Thr Cys Pro Val Gly Gly Val Tyr Tyr Phe Ala Tyr His
545   550   555   560

Val His Val Lys Gly Thr Asn Val Trp Val Ala Leu Tyr Lys Asn Asn
                565   570   575

Val Pro Ala Thr Tyr Thr Tyr Asp Glu Tyr Lys Lys Gly Tyr Leu Asp
            580   585   590

Gln Ala Ser Gly Gly Ala Val Leu Gln Leu Arg Pro Asn Asp Gln Val
        595   600   605

Trp Val Gln Met Pro Ser Asp Gln Ala Asn Gly Leu Tyr Ser Thr Glu
    610   615   620

Tyr Ile His Ser Ser Phe Ser Gly Phe Leu Leu Cys Pro Thr
625   630   635

<210> 109
<211> 78
<212> PRT
<213> Homo sapien

<400> 109

Met Thr Ser Leu Leu Ser Leu Ile Pro Asn Met Gln Val Phe Asn Cys
1   5   10   15

Leu Met Arg Val Glu Trp Ser Tyr Val Ser Leu Leu Phe Gly Leu Thr
            20   25   30

Lys Ile Asn His Asn Phe Gln Gly Ile Phe Met Gly Cys Asp Trp Lys
35 40 45

Leu Thr Leu Val Leu Arg Leu Ile Leu Tyr Asp Val Glu Lys Ser Ser
50 55 60

Asn Phe Ser Glu Leu Phe Leu Ile Ser Asn Thr Val Ile Thr
65 70 75

<210> 110
<211> 19
<212> PRT
<213> Homo sapien

<400> 110

Met Gly Arg Glu Arg Met Leu Ile Phe Lys Phe Leu Ser Leu Val Lys
1 5 10 15

Phe Cys Ile

<210> 111
<211> 36
<212> PRT
<213> Homo sapien

<400> 111

Met Thr Lys Ser His Lys Lys Ser Thr Arg Ser Pro Leu Cys Ala Trp
1 5 10 15

Leu Leu Phe Lys Lys Lys Lys Asn Pro Val Tyr Leu Trp Thr His Ser
20 25 30

Met Arg Thr Met
35

<210> 112
<211> 36
<212> PRT
<213> Homo sapien

<400> 112

Met Gln Met Pro Asn Asn Pro Cys Met Ala Asn Met Phe Thr Leu Ser
1 5 10 15

Leu Met Asn Thr Met Arg Thr Val Ser Cys Thr Val His Arg His Ser
20 25 30

Pro Ser His Asp
35

<210> 113
<211> 66
<212> PRT
<213> Homo sapien

<400> 113

Met Trp Val Thr Met Gln Met Phe Met Asn Asn Phe Thr Glu Val Ile
1 5 10 15

Pro Ser Val Phe Cys Ser Asn Thr Trp Arg Met Thr Phe Ile Phe Ile
20 25 30

Tyr Phe Ile Ser Leu Phe Gln Leu Ser Ser Asp Asn Ser Gly Asn Val
35 40 45

Ser Phe Phe Phe Phe Phe Thr Lys Thr Phe Tyr Cys Val Thr Cys Cys
50 55 60

Ile Met
65

<210> 114
<211> 101
<212> PRT
<213> Homo sapien

<400> 114

Leu Phe Tyr Leu Arg Arg Gly Phe Ala Leu Ser Pro Ser Leu Asp Phe
1 5 10 15

Ser Gly Thr Ile Leu Ala Tyr Cys Asn Leu His Leu Leu Gly Ala Asn
20 25 30

Asn Pro Pro Thr Ser Val Ser Ala Val Ala Gly Thr Thr Gly Thr Cys
35 40 45

His His Ala Gln Leu Ile Phe Ile Phe Leu Leu Glu Thr Glu Phe His
50 55 60

Tyr Val Ala Gln Val Gly Leu Lys Ile Pro Ser Ser Ser Asp Val Pro

65 70 75 80

Thr Leu Ala Ser Gln Ser Ala Arg Thr Thr Gly Met Ser His Cys Ala
85 90 95

Gln Pro Ser Phe Phe
100

<210> 115
<211> 48
<212> PRT
<213> Homo sapien

<400> 115

Met Asn His Leu Ile Ile Lys Tyr Leu Ala Asp Phe Gly Arg Gly Leu
1 5 10 15

Val Val Asp Asp Leu Thr Ser Ile Asn His Leu Ala Ala Pro Arg Ile
20 25 30

His His Thr Ala Pro Leu Glu His Asp Leu Glu Ala His Ser Pro Ile
35 40 45

<210> 116
<211> 53
<212> PRT
<213> Homo sapien

<400> 116

Met Asn Thr Ser Ser Arg Leu Val Ser Ile Ser Lys Arg Thr Ser Arg
1 5 10 15

Asn Ala Ser Ala Ala Val Cys Ala Trp Glu Ser Gln Arg Gly Asn Leu
20 25 30

Pro Ser Pro Pro Ser Arg Ala Gly Gly Glu Gln Glu Asp Thr Leu Pro
35 40 45

His Leu Gly Arg Asp
50

<210> 117
<211> 41
<212> PRT
<213> Homo sapien

<400> 117

Met Asp Leu Ile Gln Ser Thr Ser Phe Cys Tyr Asn Ser Tyr Ile His
1 5 10 15

Thr Tyr Leu Ser Lys Leu Thr Leu Val His Arg His His Phe Thr Gly
20 25 30

Pro Ser Ser Thr Leu Cys Val Ile His
35 40

<210> 118
<211> 88
<212> PRT
<213> Homo sapien

<400> 118

Met Cys Ile Asn Leu Asn Asn Thr Gln Lys Asn Tyr Asn Leu Lys Ile
1 5 10 15

Ala Val Phe Asn Met Arg Ile Ile Tyr Val Cys Lys Tyr Ser Thr Lys
20 25 30

Lys Asn Gln Lys Cys Gly Ile Ile Leu Gln Glu Lys Ile Phe Lys Met
35 40 45

Glu Ser Pro Phe Met Asn Val Leu Ile Leu Lys Ser Lys Val Met Phe
50 55 60

Phe Tyr Asn Val Tyr Ile Ile Met Phe Thr Lys Ala Ile Lys Ser Phe
65 70 75 80

Gln Lys Val Leu Ile Leu Gln Ile
85

<210> 119
<211> 25
<212> PRT
<213> Homo sapien

<400> 119

Met Thr Thr Cys Phe Thr Trp Ser Tyr Phe Ala Ile Trp Thr Ile Leu
1 5 10 15

Leu Ser Glu Leu Ile Leu His Thr Cys
20 25

<210> 120
<211> 109
<212> PRT
<213> Homo sapien

<400> 120

Cys Phe Tyr Asp Leu Leu Gly Arg Pro Gly Pro Met Leu Ser Ala Gly
1 5 10 15

Leu Ile Phe Leu Phe Leu Phe Glu Thr Glu Ser Arg Ser Pro Ser Arg
20 25 30

Leu Lys Cys Ser Gly Val Ile Ser Ala His Cys Asn Leu Cys Leu Pro
35 40 45

Gly Ser His Glu Ser Ser Ala Ser Ala Ser Ala Val Ala Gly Thr Thr
50 55 60

Gly Thr Cys His His Thr Gln Leu Ile Phe Val Phe Leu Val Glu Thr
65 70 75 80

Gly Phe His His Val Gly Gln Asp Gly Leu Glu Pro Leu Thr Gln Val
85 90 95

Ile Ser Pro Pro Gln Leu Pro Lys Val Leu Gly Leu Gln
100 105

<210> 121
<211> 66
<212> PRT
<213> Homo sapien

<400> 121

Met Ser Asn Val Ile Ile Met Leu Arg Thr Ser Arg Ser Phe Ser Ile
1 5 10 15

Leu Thr Gly Phe Ile His Ile Leu Leu Leu Tyr Ser Asn Ile Ala Leu
20 25 30

Lys Val Leu Thr Val Ser Val Ala Lys Ser Ile Ile Ser Trp Thr Ile
35 40 45

Leu Asn Gly Met Phe Thr Arg Pro Lys Met Lys Val Leu Lys Ser Tyr
50 55 60

Leu Phe

65

<210> 122
<211> 41
<212> PRT
<213> Homo sapien

<400> 122

Met Pro Leu Leu Phe Lys Asn Cys Ala Val Ile Thr Val Leu Ile Leu
1 5 10 15

Val Tyr Leu Gly Ile Tyr Pro Ser Val Val Phe Ile Leu Ile Leu Ser
20 25 30

Ile Thr Leu Arg Arg Ser Ser Ser Ile
35 40

<210> 123
<211> 28
<212> PRT
<213> Homo sapien

<400> 123

Met Ser Ser Val Lys Asn Ser Lys Leu Leu Val Leu Pro Ile Pro Asn
1 5 10 15

Pro Tyr Leu Thr Gln Leu Ser Lys Met Phe Thr Ser
20 25

<210> 124
<211> 58
<212> PRT
<213> Homo sapien

<400> 124

Met Leu Gly Asn Leu Gly Gly Lys Pro Asn Phe Pro Pro Gly Pro Val
1 5 10 15

Leu Ala Pro Gly Ser Pro Arg Leu Phe Leu Leu Leu Cys Val Gly Val
20 25 30

Phe Phe Val Ser Lys Thr Leu Asp Asn Leu Phe Gln Ile Tyr Ser Lys
35 40 45

Ile Leu Lys His Cys Ile Asn Ile Lys Val
50 55

<210> 125
<211> 98
<212> PRT
<213> Homo sapien

<400> 125

Phe Leu Phe Leu Arg Gln Ser Phe Ala Leu Ala Thr Gln Ala Gly Val
1 5 10 15

Arg Trp Cys Asp Leu Gly Ser Pro Gln Pro Pro Pro Pro Gly Leu Lys
20 25 30

Arg Leu Ser Cys Leu Ser Pro Pro Ser Arg Trp Asp Tyr Arg Pro Gly
35 40 45

Pro Pro His Pro Ala Asn Phe Ala Leu Pro Val Glu Met Gly Ser Leu
50 55 60

His Val Gly Gln Ala Gly Leu Gln Pro Leu Thr Ser Ser Asp Pro Pro
65 70 75 80

Ala Pro Ala Ser Gln Ser Ala Gly Thr Thr Asp Val Ser His Trp Thr
85 90 95

Arg Pro

<210> 126
<211> 45
<212> PRT
<213> Homo sapien

<400> 126

Met Lys Ile Cys Leu Lys Phe Asn Trp Asn His Gly Ile Ser His Gln
1 5 10 15

Phe Glu Leu Ser Asn Met Pro Asn Leu Asp Ile Leu Ile Leu Glu Asn
20 25 30

Gln Phe Leu Lys Ile Leu Lys Cys Ser Val Phe Arg Thr
35 40 45

<210> 127
<211> 1088
<212> PRT
<213> Homo sapien

<400> 127

```
Asp Asp Ser Leu Ile Ser Ser Ala Thr Ala Ile Met Glu Ala Val Val
1               5                  10                  15

Arg Glu Trp Ile Leu Leu Glu Lys Gly Ser Ile Glu Ser Leu Arg Thr
            20                  25                  30

Phe Leu Leu Thr Tyr Val Leu Gln Arg Pro Asn Leu Gln Lys Tyr Val
        35                  40                  45

Arg Glu Gln Ile Leu Leu Ala Val Ala Val Ile Val Lys Arg Gly Ser
    50                  55                  60

Leu Asp Lys Ser Ile Asp Cys Lys Ser Ile Phe His Glu Val Ser Gln
65                  70                  75                  80

Leu Ile Ser Ser Gly Asn Pro Thr Val Gln Thr Leu Ala Cys Ser Ile
                85                  90                  95

Leu Thr Ala Leu Leu Ser Glu Phe Ser Ser Ser Ser Lys Thr Ser Asn
            100                 105                 110

Ile Gly Leu Ser Met Glu Phe His Gly Asn Cys Lys Arg Val Phe Gln
        115                 120                 125

Glu Glu Asp Leu Arg Gln Ile Phe Met Leu Thr Val Glu Val Leu Gln
    130                 135                 140

Glu Phe Ser Arg Arg Glu Asn Leu Asn Ala Gln Met Ser Ser Val Phe
145                 150                 155                 160

Gln Arg Tyr Leu Ala Leu Ala Asn Gln Val Leu Ser Trp Asn Phe Leu
                165                 170                 175

Pro Pro Asn Leu Gly Arg His Tyr Ile Ala Met Phe Glu Ser Ser Gln
            180                 185                 190

Asn Val Leu Leu Lys Pro Thr Glu Ser Leu Arg Glu Thr Leu Leu Asp
        195                 200                 205

Ser Arg Val Met Glu Leu Phe Phe Thr Val His Arg Lys Ile Arg Glu
    210                 215                 220
```

```
His Ser Asp Met Ala Gln Asp Ser Leu Gln Cys Leu Ala Gln Leu Ala
225                 230                 235                 240

Ser Leu His Gly Pro Ile Phe Pro Asp Glu Gly Ser Gln Val Asp Tyr
                245                 250                 255

Leu Ala His Phe Ile Glu Gly Leu Leu Asn Thr Ile Asn Gly Ile Glu
            260                 265                 270

Ile Glu Asp Ser Glu Ala Val Gly Ile Ser Ser Ile Ile Ser Asn Leu
        275                 280                 285

Ile Thr Val Phe Pro Arg Asn Val Leu Thr Ala Ile Pro Ser Glu Leu
    290                 295                 300

Phe Ser Ser Phe Val Asn Cys Leu Thr His Leu Thr Cys Ser Phe Gly
305                 310                 315                 320

Arg Ser Ala Ala Leu Glu Glu Val Leu Asp Lys Asp Asp Met Val Tyr
                325                 330                 335

Met Glu Ala Tyr Asp Lys Leu Leu Glu Ser Trp Leu Thr Leu Val Gln
            340                 345                 350

Asp Asp Lys His Phe His Lys Gly Phe Phe Thr Gln His Ala Val Gln
        355                 360                 365

Val Phe Asn Ser Tyr Ile Gln Cys His Leu Ala Ala Pro Asp Gly Thr
    370                 375                 380

Arg Asn Leu Thr Ala Asn Gly Val Ala Ser Arg Glu Glu Glu Glu Ile
385                 390                 395                 400

Ser Glu Leu Gln Glu Asp Asp Arg Asp Gln Phe Ser Asp Gln Leu Ala
                405                 410                 415

Ser Val Gly Met Leu Gly Arg Ile Ala Ala Glu His Cys Ile Pro Leu
            420                 425                 430

Leu Thr Ser Leu Leu Glu Glu Arg Val Thr Arg Leu His Gly Gln Leu
        435                 440                 445

Gln Arg His Gln Gln Gln Leu Leu Ala Ser Pro Gly Ser Ser Thr Val
    450                 455                 460
```

Asp Asn Lys Met Leu Asp Asp Leu Tyr Glu Asp Ile His Trp Leu Ile
465 470 475 480

Leu Val Thr Gly Tyr Leu Leu Ala Asp Asp Thr Gln Gly Glu Thr Pro
485 490 495

Leu Ile Pro Pro Glu Ile Met Glu Tyr Ser Ile Lys His Ser Ser Glu
500 505 510

Val Asp Ile Asn Thr Thr Leu Gln Ile Leu Gly Ser Pro Gly Glu Lys
515 520 525

Ala Ser Ser Ile Pro Gly Tyr Asn Arg Thr Asp Ser Val Ile Arg Leu
530 535 540

Leu Ser Ala Ile Leu Arg Val Ser Glu Val Glu Ser Arg Ala Ile Arg
545 550 555 560

Ala Asp Leu Thr His Leu Leu Ser Pro Gln Met Gly Lys Asp Ile Val
565 570 575

Trp Phe Leu Lys Arg Trp Ala Lys Thr Tyr Leu Leu Val Asp Glu Lys
580 585 590

Leu Tyr Asp Gln Ile Ser Leu Pro Phe Ser Thr Ala Phe Gly Ala Asp
595 600 605

Thr Glu Gly Ser Gln Trp Ile Ile Gly Tyr Leu Leu Gln Lys Val Ile
610 615 620

Ser Asn Leu Ser Val Trp Ser Ser Glu Gln Asp Leu Ala Asn Asp Thr
625 630 635 640

Val Gln Leu Leu Val Thr Leu Val Glu Arg Arg Glu Arg Ala Asn Leu
645 650 655

Val Ile Gln Cys Glu Asn Trp Trp Asn Leu Ala Lys Gln Phe Ala Ser
660 665 670

Arg Ser Pro Pro Leu Asn Phe Leu Ser Ser Pro Val Gln Arg Thr Leu
675 680 685

Met Lys Ala Leu Val Leu Gly Gly Phe Ala His Met Asp Thr Glu Thr
690 695 700

Lys Gln Gln Tyr Trp Thr Glu Val Leu Gln Pro Leu Gln Gln Arg Phe
705 710 715 720

Leu Arg Val Ile Asn Gln Glu Asn Phe Gln Gln Met Cys Gln Gln Glu
725 730 735

Glu Val Lys Gln Glu Ile Thr Ala Thr Leu Glu Ala Leu Cys Gly Ile
740 745 750

Ala Glu Ala Thr Gln Ile Asp Asn Val Ala Ile Leu Phe Asn Phe Leu
755 760 765

Met Asp Phe Leu Thr Asn Cys Ile Gly Leu Met Glu Val Tyr Lys Asn
770 775 780

Thr Pro Glu Thr Val Asn Leu Ile Ile Glu Val Phe Val Glu Val Ala
785 790 795 800

His Lys Gln Ile Cys Tyr Leu Gly Glu Ser Lys Ala Met Asn Leu Tyr
805 810 815

Glu Ala Cys Leu Thr Leu Leu Gln Val Tyr Ser Lys Asn Asn Leu Gly
820 825 830

Arg Gln Arg Ile Asp Val Thr Ala Glu Glu Glu Gln Tyr Gln Asp Leu
835 840 845

Leu Leu Ile Met Glu Leu Leu Thr Asn Leu Leu Ser Lys Glu Phe Ile
850 855 860

Asp Phe Ser Asp Thr Asp Glu Val Phe Arg Gly His Glu Pro Gly Gln
865 870 875 880

Ala Ala Asn Arg Ser Val Ser Ala Ala Asp Val Val Leu Tyr Gly Val
885 890 895

Asn Leu Ile Leu Pro Leu Met Ser Gln Asp Leu Leu Lys Phe Pro Thr
900 905 910

Leu Cys Asn Gln Tyr Tyr Lys Leu Ile Thr Phe Ile Cys Glu Ile Phe
915 920 925

Pro Glu Lys Ile Pro Gln Leu Pro Glu Asp Leu Phe Lys Ser Leu Met

930 935 940

Tyr Ser Leu Glu Leu Gly Met Thr Ser Met Ser Ser Glu Val Cys Gln
945 950 955 960

Leu Cys Leu Glu Ala Leu Thr Pro Leu Ala Glu Gln Cys Ala Lys Ala
965 970 975

Gln Glu Thr Asp Ser Pro Leu Phe Leu Ala Thr Arg His Phe Leu Lys
980 985 990

Leu Val Phe Asp Met Leu Val Leu Gln Lys His Asn Thr Glu Met Thr
995 1000 1005

Thr Ala Ala Gly Glu Ala Phe Tyr Thr Leu Val Cys Leu His Gln
1010 1015 1020

Ala Glu Tyr Ser Glu Leu Val Glu Thr Leu Leu Ser Ser Gln Gln
1025 1030 1035

Asp Pro Val Ile Tyr Gln Arg Leu Ala Asp Ala Phe Asn Lys Leu
1040 1045 1050

Thr Ala Ser Ser Thr Pro Pro Thr Leu Asp Arg Lys Gln Lys Met
1055 1060 1065

Ala Phe Leu Lys Ser Leu Glu Glu Phe Met Ala Asn Val Gly Gly
1070 1075 1080

Leu Leu Cys Val Lys
1085

<210> 128
<211> 33
<212> PRT
<213> Homo sapien

<400> 128

Met Glu Lys Tyr Phe Ser Gly Cys Arg Leu Glu Phe Asp Tyr Gln Ile
1 5 10 15

Asp Phe Cys Glu Leu His Phe Asn Ser Val Gln Asn Phe Leu Thr Ala
20 25 30

Leu

<210> 129
<211> 154
<212> PRT
<213> Homo sapien

<400> 129

Met Val Ile Leu Ser Phe Lys His Gly Gly Ile Val Ala Tyr Arg Met
1 5 10 15

Ser Glu Pro Tyr Ala Ser Leu Leu Asp Ile Tyr Ile Gly Ser His Phe
20 25 30

Ser Cys Ile Ile Tyr Trp Asp Val Phe Pro Ala Phe Ser Val Pro Ile
35 40 45

Asn Asn Thr Gln Asn Thr His Thr Pro Asn Pro Gly Ala Glu Asn Thr
50 55 60

Gly Ala Pro Thr Cys Pro Pro Gly Gly Asp Thr Val Arg Ser Pro Arg
65 70 75 80

Leu Gln Asn Ser Pro Gln His Asn Tyr Arg Arg Arg Asn Arg Ala Thr
85 90 95

Glu Tyr Arg His Arg Ala Thr Arg Asp Asp Phe Thr Pro Arg Pro Tyr
100 105 110

Asp Ala His Gly Asn Thr Lys Thr Arg Arg Gly Asn His Ile Arg Thr
115 120 125

Arg Glu Asn Gly Arg Trp Arg Pro Arg Ala Lys Pro Thr Lys Ser Thr
130 135 140

Thr His Arg Thr Thr His Asn Ala Arg Pro
145 150

<210> 130
<211> 37
<212> PRT
<213> Homo sapien

<400> 130

Met Phe Arg Leu Leu Leu Leu Leu Asn Met Lys Pro Pro Cys Trp Leu
1 5 10 15

Asp Arg Ile Asn Phe Ile His Val Met Glu Asn Ser Ile Leu Gln Ile
20 25 30

Trp Ser Pro Ile Ile
35

<210> 131
<211> 72
<212> PRT
<213> Homo sapien

<400> 131

Met Ile Ser Trp Lys Ser Ile Leu His Pro Gly Arg Tyr Met Leu Ile
1 5 10 15

Tyr Met Gly Val Lys Tyr His Glu Val Ser Thr Phe Ser Gln Lys Gln
20 25 30

Arg Lys Glu Lys Glu Ile Tyr Ser His Pro Thr His Ile His Arg Tyr
35 40 45

Gly Lys Tyr His Gln Ala Leu Thr Leu Val Asn Leu Gly Glu Gly Tyr
50 55 60

Met Gly Phe Gln Cys Thr Ser Ala
65 70

<210> 132
<211> 43
<212> PRT
<213> Homo sapien

<400> 132

Met Pro Ser Phe Ser Pro Arg Gly Pro Leu Trp Pro Cys Val Pro Pro
1 5 10 15

Ala Phe Phe Phe Val Phe Cys Phe Phe Cys Cys Arg Ile His Gln Glu
20 25 30

Lys Leu Leu Met Val Arg Arg Glu Thr Trp Leu
35 40

<210> 133
<211> 61
<212> PRT

<213> Homo sapien

<400> 133

Met Asp Pro Pro Gly Gln Val Leu Phe Ile His Ile Ser Leu Gly Phe
1 5 10 15

Leu Pro Leu Gly Asn Asn Cys Pro Ser Ile Tyr Leu Val Phe Phe Leu
20 25 30

Val Thr Leu Ile Lys Leu Leu Thr Ser Thr Tyr Asn Ile Val Lys Pro
35 40 45

Glu Tyr Leu Ile Leu Thr Val Lys Lys Asn Met Met Thr
50 55 60

<210> 134
<211> 75
<212> PRT
<213> Homo sapien

<400> 134

Met Arg Ser Ile Phe Leu Gln Arg Pro Pro Leu Asn Ile Val Pro Gln
1 5 10 15

Phe Ala Ala Lys Asn Ile Leu Ser Leu Lys Gln Arg Gly Val Ser Leu
20 25 30

Glu Leu Pro Ile Phe Leu Ser Cys Gln Lys Lys Ala Leu Arg Val Ser
35 40 45

Pro Cys Ile Tyr Ser Cys Val Pro Leu Cys Glu Phe Val Phe Pro Ser
50 55 60

Thr His Phe Pro His Asn His Gln Arg Lys Gly
65 70 75

<210> 135
<211> 74
<212> PRT
<213> Homo sapien

<400> 135

Met Glu Asn Val Thr Arg His Met Ser Val Ala Val Lys Phe Gln Asn
1 5 10 15

Ser Ser Asp Ser Arg Gln Glu Ala Lys Leu Asn Leu Ala Ser Phe Asn

20 25 30

Leu Asn Ser Pro Leu Trp His Lys Ser Thr Leu Asn Phe Lys Val Asn
35 40 45

Arg Gly Pro Phe Ser Pro Lys His Lys Phe Pro Leu Ala Val Cys Gln
50 55 60

Ser Gly Leu Ile Asn Gln Leu Leu His Cys
65 70

<210> 136
<211> 31
<212> PRT
<213> Homo sapien

<400> 136

Met His Gly Thr Ser Leu Pro Gln Leu Ala Ala Leu Gly Asp Phe Ser
1 5 10 15

Ser Ser Leu Gly Asp Cys Val Ser His Leu Glu Ser Met Cys Val
20 25 30

<210> 137
<211> 56
<212> PRT
<213> Homo sapien

<400> 137

Met Leu Ala Glu Pro Ser Tyr Gly Pro Gln Ser Pro Pro Pro Pro Pro
1 5 10 15

His Arg His Gly Leu Asn Gly Ser Pro Arg Phe Phe Leu Pro Arg Arg
20 25 30

Pro Ala Arg Ala His Pro Ser Gln Leu Arg Arg Ser Ser Ser Ile Arg
35 40 45

Gly Pro Ser Arg Leu Tyr Ile Asp
50 55

1

1